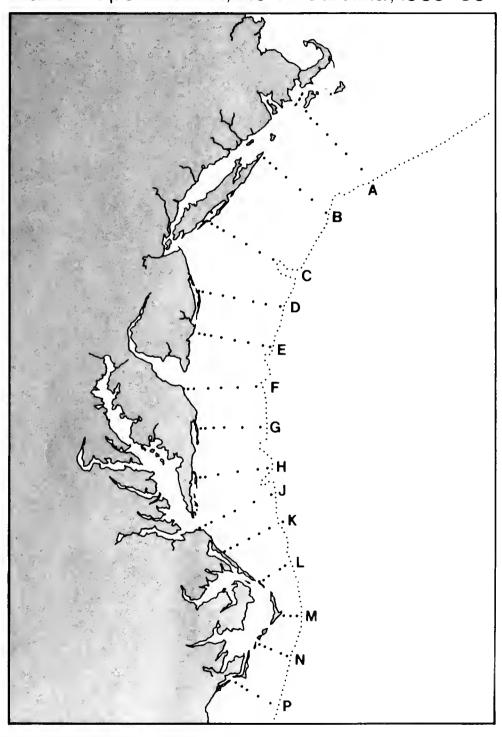
Tech Series Report No. 15

Ichthyoplankton from the RV *Dolphin* Survey of Continental Shelf Waters between Martha's Vineyard, Massachusetts and Cape Lookout, North Carolina, 1965-66



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# ICHTHYOPLANKTON FROM THE RV DOLPHIN SURVEY OF CONTINENTAL SHELF WATERS BETWEEN MARTHA'S VINEYARD, MASSACHUSETTS AND CAPE LOOKOUT, NORTH CAROLINA, 1965-66

by

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## ABSTRACT

Data are tabulated on ichthyoplankton and concomitant physical conditions collected during a survey of Atlantic continental shelf waters. Sampling information and laboratory procedures are described. Numbers and lengths of 87 species of larval fishes are tabulated by station; egg catches for 9 of these are included. Additionally, the presence of 79 categories of larvae, presently identified only to genus or a higher taxon, is noted by station.

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#### INTRODUCTION

Between December 1965 and December 1966 Sandy Hook Laboratory conducted an ichthyoplankton survey of continental shelf waters from Martha's Vineyard, Massachusetts to Cape Lookout, North Carolina. This study was designed to determine where and when marine fishes spawn, describe distributions and dispersal patterns of their eggs and larvae, and was intended to eventually help us evaluate the extent of estuarine dependence of their young.

This report presents data on young stages of 166 taxa and includes descriptions of sampling design and physical conditions associated with the plankton collections. Although the identifications of some taxa are not to the specific level, we present these data in their present form because: 1) the areal and seasonal extent of our survey is the most comprehensive undertaken in the Middle Atlantic Bight; 2) we have received many requests for portions of the data; 3) the small numbers of some species do not warrant publishing individually; and 4) there is value in publishing the data by station as well as by species.

Some data have already been published. Field and laboratory procedures, physical conditions, zooplankton volumes, and a list of juvenile and adult fishes caught in a mid-water trawl are included in Clark et al. (1969).

Reports on individual species taken from plankton samples have been published as follows: Centropristis striata (Kendall 1972), Ammodytes sp. (Richards and Kendall 1973), Paralichthys dentatus (Smith 1973), Merluccius bilinearis (Fahay 1974), Brevoortia tyrannus (Kendall and Reintjes 1975), and Pleuronectiformes (Smith et al. 1975). Descriptions of young stages,

based on survey specimens include <u>Paralichthys dentatus</u> (Smith and Fahay 1970) and <u>Scomber scombrus</u> (Berrien 1975). Similar papers on other species are in preparation or planned.

#### METHODS

Sampling procedures described by Clark et al. 1969, Smith 1973, and Fahay 1974 are only summarized here. On each cruise we sampled at 92 stations situated on 14 transects (Figure 1). Stations were shoreward as close to the beach as the vessel could operate, and seaward to near the continental shelf edge. We completed eight cruises from December 1965 to December 1966. In addition, on an incomplete cruise in September 1966 (cruise D-66-11) we sampled four transects between Martha's Vineyard, Massachusetts and Barnegat Inlet, New Jersey.

Two Gulf V samplers (Arnold 1959) with 0.52-mm mesh netting were usually towed simultaneously at each station. All step oblique tows were 30 min at a speed of 9.3 km/h (5 kt). In a standard tow the nets were lowered in six 3-m depth increments, or steps, and towed for 5 min at each depth. One Gulf V sampled from 0 to 15 m, and the other from 18 to 33 m. Alterations to this standard towing procedure, necessitated by varying water depth are shown in Figure 2. Surface temperature was measured with a stem thermometer. Mechanical bathythermographs provided temperature data with water depth. Salinity was measured with an in situ induction salinometer at 5-m depth increments to a maximum of 50 m.

All fish eggs and larvae were removed by successively sorting small portions of each plankton sample under dissecting microscopes as described in Clark et al. (1969). The responsibility for identification of eggs

and larvae was divided among the four authors as follows:

Michael P. Fahay - elopiform and anguilliform leptocephali, Gadidae, and Merlucciidae.

W. G. Smith - Pleuronectiformes.

Arthur W. Kendall, Jr. - Serranidae, Labridae, Clupeiformes, Myctophidae, Ammodytes, Pomatomus, and Peprilus.

Peter Berrien - Sciaenidae and Scombridae.

Kenneth Able, of McGill University, identified the Liparidae.

Remaining fish larvae were identified, largely to the familial level, by Peter Berrien, with assistance from the other biologists.

The generic and specific names assigned to specimens conform to Bailey et al. (1970), or to current usage among workers of appropriate purview.

Nomenclature and order of listing (Tables 1 and 3) among higher taxa conforms to Greenwood et al. (1966), except for placing Scorpaeniformes and Dactylopteriformes after Perciformes as in Bailey et al. (1970).

In order to express the density of eggs and larvae in a standard manner (as number per  $10m^2$  sea surface) and because of the variation in tow schemes between stations, the following procedures were used. All deep-net catches (18-33 m) were reduced by 10% of the shallow-net catch (0-15 m) to compensate for contamination in the upper 15 m of water. Because flowmeters were not used, a theoretical value of  $495m^3$  of water filtered by each sampler was used in calculations. This value was based on a reported 85% filtration efficiency for unencased conical nets of the dimensions and porosity used (Tranter and Smith 1968). Therefore, the

water volume filtered = 0.85 ( $\pi r^2 h$ ); r = 0.2m, h = 4630m. Catch per square meter of ocean surface area (subsequently converted to catch per  $10m^2$  in this case) was calculated by dividing the standardized number caught by the ocean area corresponding to the volume filtered, after equalizing the sampling effort at each depth to the standard of 5 min. Standardization of effort, catch, and volume filtered is illustrated in Figure 2.

#### RESULTS

Table 1 indicates how many larvae of each analyzed species were taken during each cruise, the presence of unanalyzed taxa, and the number of occurrences for all larval taxa and nine egg species. Table 2 is a summary of data associated with each plankton collection. The following comments are included to clarify certain entries in the table.

- 1) Light condition "dawn" or "dusk" was assigned if sunrise or sunset occurred during any part of the 30-min tow.
- 2) The mean temperatures and mean salinities were calculated from measurements at 5-m depth intervals. Measurements within the plankton sampling depths were multiplied by the meters of depth they represented, the products were totaled, and the sum was divided by the number of meters sampled by the Gulf V net.
- 3) Values for temperature or salinity ranges were interpolated as needed from the measurements at 5-m intervals.
- 4) Water depth was calculated by averaging the fathometer depth at the start and end of the plankton tow.

5) The thermocline was designated as strong (if there was a change in temperature of at least 1°C per meter of depth), weak (a change of less than 1°C per meter, but stratification was present), gradual (slight, but constant change in temperature with depth, no distinct thermocline or stratification), or none (little or no temperature change with depth, isothermal).

Table 3 lists the fish eggs and larvae identified. Transects are listed from north to south (alphabetically) and stations on each transect from inshore to offshore (numerically). Fishes are listed in two categories: "Species Analyzed" and "Additional Larvae Caught". In the first category, any number including zero in the "No. Eggs" column indicates that we looked for eggs of a given species. Lack of a number in this column indicates that we did not search for eggs of this species, and does not necessarily mean they were not present in the samples. The second category refers to those fishes present in the samples which were not counted or measured. These were usually identified to family or a higher taxon.

In a few cases where the numbers of specimens caught, shown in Table 3, do not agree with results published elsewhere, the differences are due to adjustments to raw data in correcting for contamination of the deep net in the shallow zone and in standardizing sampling effort, or recent finds of specimens that initially had been incorrectly identified.

## ACKNOWLEDGMENTS

We thank Charles Morrison, John LeBaron, and Gregory Howard for carrying out the computer work; and the many biological aids and technicians who performed the numerous sorting, counting, measuring, and tabulating tasks.

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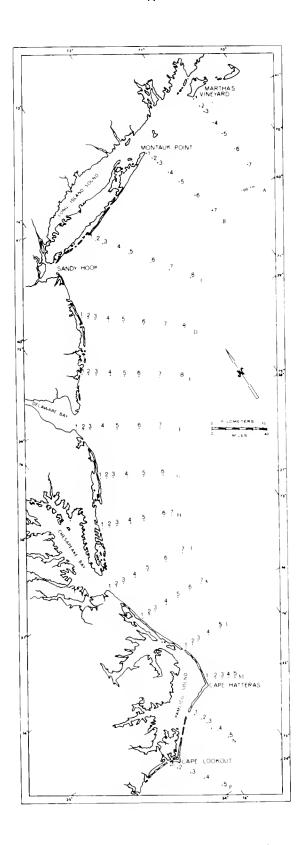
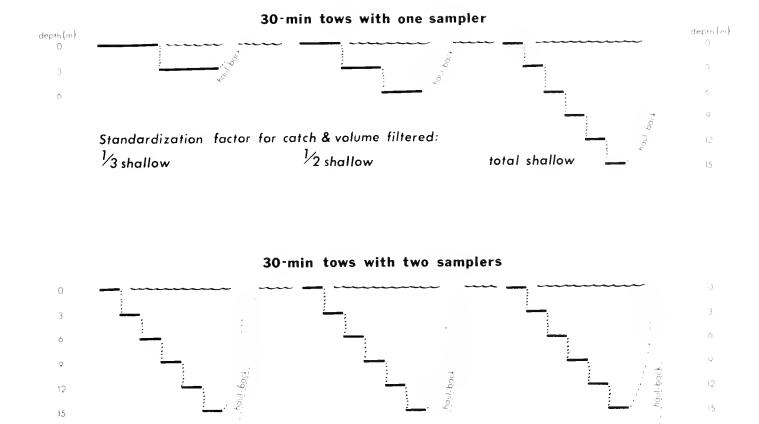


Figure 1. Locations of transects and collecting stations for the ichthyoplankton survey.



18

24

total shallow + 1/3 deep 18

Figure 2. Variations in tow profile due to varying water depth and procedures for standardization of effort between stations. Ocean surface area corresponding to each standardized tow was determined by dividing the standardized volume filtered by the maximum depth sampled. Resultant catch densities were converted to catch per 10m<sup>2</sup> for Table 3.

total shallow

+ 1/2 deep

total shallow

+ total deep

Standardization factor for catch & valume filtered:

List of taxa identified from survey cruises. The number of larvae caught, if analyzed, or the presence of larvae not analyzed (+) is indicated before the slash; after the slash the number of occurrences given includes all larvae and nine species of eggs marked (\*). TABLE 1.

TABLE 1. (continued)

TAXO	N	65-4 Dec	66-1 Jan-Feb	66-3 Apr	66-5 May	66-7 June	66-10 Aug	66-11 Sept	66-12 Sept-Oct	66-14 Nov-Dec
Diogenichthys atlanticus			1/1				1/1		5	1/1
Hygophum brooniti			1/1	7/4	1/1	1/1			1 /1	1/1
Hygophum benoiti or hygomi			1/1 4/2	2/1	1/1	4/1				2/2
Hygophum reinhardti									1/1	2/2
Hygophum tanningi Lampanyctus sp.		1/1		8/3	2/2	2/1				2/1
Lampanyctus alatus or photonotus	tus	34/7	5/2	7/2	4/3	7/4	2/2		3/2	5/4
Lampanyctus ater		3/3		3/2	4/3	1/1			1/1	
Lampanyctus cuprinus				2/1	1/1	2/1	1/1		3/1 2/1	7 /7
Lampadena sp.				3/2	1/1	5/3			î	1/1
Lepidophanes sp.							1/1			
Myctophum sp.		2/2	1/1		4/2	7/1	ì			13
Myctophum affine		2/2	1/1	6/3	2/1	7/3			1/1	
				1/1		2/2			1/1	
Notolychnus valdivae			3/2		1/1				2/1	
Notoscopelus sp.		6/1	11/6	1/1	-					1/1
Symbolophorus veranyi		2/2	7 /ħ		1/1					
Lophiiformes		+/2	+/2		+/8	9/+	+/3	+/1	+/17	+/3
Lophius americanus	goosefish	2/2		12/2	15/5	148/37	110/26	91/11	37/14	1/1
Gadiformes Bregmacerotidae		1/+	4/5	+/5	L/+	+/3	+/2		9/+	9/+
Gadidae  Enchelyopus cimbrius*  Gadus morhua*	fourbeard rockling Atlantic cod	7/4	6/5	7/13	221/50 141/26	3072/44	252/22	485/21	285/28	41/16
Melanogrammus aeglefinus*	haddock		3/2	0/4	258/13	12/7				

TABLE 1. (continued)

,.							1 <i>7</i>	-			_				
66-14 Nov-Dec	+/1	+/1	+/4			+/8		+/10		i i	55/8 1025/19	+/1	+/2	L/+	+/5
66-12 Sept-Oct	+/1	+/2	9/+	+/1	2/1	+/10	+/1	+/2	+/2	21/9	441/20	+/1	+/3	+/11	+/3
66-11 Sept					2/2	+/1								+/3 5/2 16/7	
66-10 Aug	9/+	+/2	+/2	+/2	1621/25	+/15	+/1	+/3	4/8	3/2 90/14	48/15 265/18	+/1	+/2	+/19 67/5 693/32	
66-7 June			9/+	+/1		+/11	+/3	+/2	+/3	5/4	58/12		+/3	+/9 152/20 3467/22	+/4
66-5 May	+/2	+/2	9/+	+/2	25/5	6/+	9/+	+/14	( )	7/4	3/2 4/1	+/2	+/3	+/11 81/9	8/+
66-3 Apr	+/2		+/1			+/5	+/2	4/7		1/1	24/6 1/1 2/2	+/1	+/3	+/5	+/1
66-1 Jan-Feb	+/1		+/1		1/1	+/4		4/8			406/14			4/+	+/3
65-4 Dec	+/1		+/1			+/4	+/1	+/14			1749/18	+/3		L/+	9/+
Z O	soapfishes	bigeyes	cardinalfishes	unident. tilefishes	bluefish	jacks	dolphins	porgies	drums	unident, weakiishes banded drum	spot unident. kingfishes Atlantic croaker	butterflyfishes	damselfishes	wrasses or parrotfishes tautog cunner	mullets
TAX	Grammistidae	Priacanthidae	Apogonidae	Branchiostegidae Malacanthus sp.	Pomatomidae Pomatomus saltatrix	Carangidae	Coryphaenidae	Sparidae	Sciaenidae	Cynoscion sp. Larimus fasciatus	Leiostomus xanthurus Menticirrhus sp. Micropogon undulatus	Chaetodontidae	Pomacentridae	Labridae or Scaridae Tautoga onitis Tautogolabrus adspersus	Mugilidae

TABLE 1. (continued)

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			65-4 Dec	66-1 Jan-Feb	66-3 Apr	66-5 May	66-7 June	66-10 Aug	66-11 Sept	66-12 Sept-Oct	66-14 Nov-Dec
+/1 +/34 +/26 +/14 +/12 +/20 +/15 +/26 +/14 +/11 +/3 +/1 +/6 +/6 +/16 +/11 +/11 +/9 +/10 +/14 +/21 +/2 +/1 +/6 +/2 +/2 +/2 +/1 +/6 +/2 +/2 +/2 +/1 +/6 +/2 +/2 +/2 +/1 +/6 +/2 +/2 +/2 +/1 +/4 +/1 +/4 +/1 1/1 17/2 359/6 821/7 1343/43 2/2 1/1 17/2 359/6 821/7 332/20 1/1 17/2 359/6 821/7 1343/43 2/2 1/2 10/2 3/2 1/3 1/4 +/1 +/4 +/1 1/4 1/1 17/2 359/6 821/7 1343/43 2/2 1/1 17/2 12/2 3/2 1/2 1/6 9/9 232/20 1/1 1/6 9/9 232/20 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1 1/1	Ā	barracudas			+/1	+/5	+/2	+/3		+/4	+/3
Pricklebacks	W	targazers					+/4	+/12		+/11	+/3
Pricklebacks	ŏ	ombtooth blennies	+/1	+/1	+/34	+/26	+/14	+/11		+/13	+/4
SunderLand   Sun	ŭ,	ricklebacks				+/2					
Hamilton   Hamilton	ρ	unnels		+/20	+/15						
Subject   1,11   1,3   1,1   1,6   1,6   1,6   1,16   1,	(n	nident. sand lance		1499/54	507/51	44/16					53/3
Surgeonfishes	Ġ.	ragonets	+/11	+/3	+/1	9/+	9/+	+/16	+/1	+/11	+/11
surgeonfishes         +/5         +/1         +/6         +/2         <	ъ	obies	+/19	+/11	6/+	+/10	+/14	+/21	+/2	+/23	+/35
Strake mackerels	SI	urgeonfishes	+/5		+/1	9/+	+/2	+/2		+/1	+/2
Atlantic mackerel   1/1   17/2   359/6   821/7   1343/43   2/2	เช	nake mackerels	+/4	+/2	+/1	+/2	+/2			+/1	+/1
### ### ##############################	บิ	utlassfishes	+/1	+/1		+/4	+/1	+/4		+/5	+/2
	alunga ticus	ahoo rigate or bullet mackerel itile tunny kipjack tuna tlantic bonito hub mackerel tlantic mackerel ing mackerel ellowfin tuna		1/1	3/2	359/6 12/4 10/2 1/6 2/1 1490/64 28/3 1/1 2/2	4/1 821/7 4/2 10/2 9/9 3293/37 2/1 1/1	1343/43 90/12 3/2 232/20 76/5 18/5	2/2	9/6 5/3 37/9	

TABLE 1. (continued)

TAXO	z	65-4 Dec	66-1 Jan-Feb	66-3 Apr	66-5 May	66-7 June	66-10 Aug	66-11 Sept	66-12 66-14 Sept-Oct Nov-Dec	66-14 Nov-Dec
Istiophoridae	billfishes				+/1	+/2				
Stromateidae Peprilus triacanthus	butterfishes butterfish	+/5 7/12	10/2	+/3 108/8	+/9 284/15	+/10 357/20	+/26 2545/66	+/10 116/19	+/4	+/2 20/9
Scorpaeniformes Scorpaenidae	scorpionfishes	9/+	+/4	8/+	6/+	9/+	+/11		+/5	4/7
Triglidae Prionotus carolinus Prionotus evolans	northern searobin striped searobin	+/5 92/9	+/2	+/5	+/8	+/8	+/16 738/36 16/6	215/10	+/22 8001/62 2/2	+/7
Cottidae	sculpins		+/17	+/20	1/4					
Cyclopteridae Liparis inquilinus or atlanticus					5	28/1				19
Liparis inquilinus	seasnail inquiline seasnail			2/1	393/22	20/8				
Dactylopteriformes Dactylopteridae Dactylopterus volitans	flying gurnard				+/2	+/1	+/1			
Pleuronectiformes Bothidae								:		
Bothus ocellatus	eyed flounder Gulf Stream flounder	123/12	16/5	36/6 33/8	354/6 10/7	264/10 24/3	56/11 4266/44	1/1 2849/26	279/16 3675/44	362/8 273/30
Cyclopsetta fimbriata	spotfin flounder	1/1		1/1	11/4	8/3	5/1		22/9	4/3
Etropus microstomus	smallmouth flounder doorwater flounder	467/12	68/7	12/5	23/6	185/22	1647/40	$\frac{14/3}{1/1}$	031/47	66/7/4
Paralichthys dentatus*	summer flounder	845/63	55/18	40/8	7/3	21700	1541/51	18/6	1424/42	520/73
Hippoglossina oblongus Scophthalmus aquosus Syacium papillosum	iourspot ilounder windowpane dusky flounder	2540/58 6/4	5//2	17/8	1270/33 363/9	27,15 123/17 273/9	128/12 128/12 262/15	75/17	2058/39 499/18	984/47 73/8

TABLE 1. (continued)

Pleuronectidae   Clyptocophalus cynoglossus   Mitch flounder   Hippoglossoides platessoides plates americanus   1/1 2549/45 10691/67 11088/50 217/25 4/3   4/3   5/400910ssidae   5/400910ssidae   5/400910ssidae   5/400910ssidae   5/40910ssidae   5/40910s	TAXON	Z	65-4 Dec	66-1 Jan-Feb	66-3 Apr	66-5 May	66-7 June	66-10 Aug	66-11 Sept	66-12 Sept-Oct	66-14 Nov-Dec
tonguefishes  tonguefishes  filefishes and triggerfishes  +/1 +/2 +/1 +/2 +/5 +/13 +/6 +/15  puffers  tonguefishes  +/1 +/2 +/1 +/2 +/1 +/2 +/5 +/16 +/15  +/2 +/1 +/2 +/1 +/2 +/16 +/16 +/16 +/16	Pleuronectidae Glyptocephalus cynoglossus Hippoglossoides platessoides Limanda ferruginea Pseudopleuronectes americanus	witch flounder American plaice yellowtail flounder winter flounder		1/1	90/26 2549/45 1837/30	568/38 101/10 10691/67 736/21	575/34 11088/50 360/7	127/26	8/6	4/3	
filefishes and triggerfishes +/1 +/2 +/11 +/16 +/15  puffers +/2 +/1 +/2 +/5 +/13 +/6 +/1  +/27 +/17 +/43 +/56 +/46 +/65 +/20	Cynoglossidae Symphurus sp.	tonguefishes	29/9	8/2	26/4	295/10	63/10	357/33		124/20	100/10
idae puffers +/2 +/1 +/2 +/5 +/13 +/6 +/1 +/2 +/27 +/17 +/43 +/56 +/46 +/65 +/20	Tetraodontiformes Balistidae	filefishes and triggerfishes	+/1	+/2		+/11	+/16	+/15		+/10	+/1
+/27 +/17 +/43 +/56 +/46 +/65 +/20	Tetraodontidae	puffers	+/2	+/1	+/2	+/5	+/13	9/+	+/1	+/7	+/2
	Unidentified		+/27	+/17	+/43	+/56	+/46	+/65	+/20	+/61	+/21

Table 2. Physical conditions and sampling data associated with plankton collections.

CP UI 59 06504 STA.	TOW OEPTH (M)			LIGHT COND.	WATER DEPTH (F)	**** TEMPI RANGE			***** 80T.	THERMO DEGREE	OCL INE DEPTH (M)	****	LINITY 10/001 PEAN	**** SURF.			** SUN ** RISE SET
C 1 C 2 C 3 C 4 C 5 C 6 C 7 C 7 C 8	0-6 0-15 0-15 18-33 0-15 18-33 0-15 19-33 0-15 18-33 0-15 18-33 0-15	3 12 3 12 4 12 4 12 4 12 4 12 4 12 4 12 4 12 4	73 53 01 27 01 37 03 12 03 12 04 49	NICHT NIGHT NIGHT NIGHT NIGHT NIGHT CAY DAY DAY CAY OAY	19 27 33 33 38 48 48 56 56 78 116	8.1- E.1 8.2- 8.2 8.C- 8.2 8.0- 8.2 8.4- E.4 10.9-11.0 10.7-11.0 10.7-11.0 10.6-10.0 9.5- 5.9 9.9- 9.9	8.2 8.1 8.1 8.4 10.9 10.0 10.0 5.9 9.9 5.9	8.1 8.2 8.0 E.0 8.4 E.4 9.5 5.5 10.0 10.0 9.9 9.9 5.9	8.0 8.3 8.0 8.0 8.4 8.4 9.6 10.0 10.0 9.3 9.3 9.7	NO NE		30.1-32.0 30.0-30.2 30.0-30.3 30.2-30.5 29.0-29.2 28.7-29.1 29.7-30.0 30.0-30.4 29.9-30.2 29.9-30.3 29.9-30.3	3 3 C . 2 2 3 O . 1 5 3 C . 4 2 2 5 . 1 2 8 . 9 2 2 5 . 7 2 9 . 8 3 3 C . 2 2 3 C . 1 3 3 C . 1 3 3 C . 0 2 9 . 9	30.3 30.0 30.0 29.2 29.2 30.0 30.0 30.4 29.7 29.7 29.7	4031 4027 4027 4019 4010 4010 3 958 3 958 3 946 3 946 3 934	73 1 4 73 1 C 73 1 O 73 0 3 73 0 3 72 5 5 72 5 5 72 4 4 72 3 3 72 3 3 72 2 2	0659 1626 0659 1627 0659 1627 0702 1630 0702 1630 0707 1626 0657 1626 0656 1626 0656 1626 0656 1626 0656 1626
C 1 D 2 C 3 D 4 C 5 D 5 C 6 D 7 D 7 D 8 C 8	0-6 0-9 0-15 0-15 18-24 0-15 18-33 0-15 18-33 0-15 18-33	5 12 5 12 5 12 5 12 5 12 5 12 5 12 5 12	19 (5 19 (5 20 49 20 49 23 19 23 19 21 18 21 18 23 12	DAY CAY NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT	11 18 25 33 37 54 54 72 72 102	7.7-7.7 7.9-8.0 8.5-8.9 8.5-8.5 9.2-5.3 9.3-9.3 9.7-5.7 9.7-9.7 10.4-10.5 10.5-10.5	7.7 7.9 8.9 8.5 8.5 9.3 9.3 5.7 5.7 10.4 10.5	7.7 8.9 8.5 8.5 6.3 9.3 6.7 5.7 10.5 10.5	7.8 7.9 8.9 8.5 9.3 9.3 10.0 10.0 10.4 11.4	A D O O O O O O O O O O O O O O O O O O		29.0-25.1 29.6-29.6 25.2-25. 29.4-29. 29.6-29.6 29.6-29.6 29.6-29.6 29.6-29.6 29.6-30.2 30.0-30.6	29.3 29.8 25.5 25.5 25.5 25.8 25.8 25.8 25.6 25.6 25.6 25.6 25.6	29.0 28.9 29.9 29.7 29.7 29.5 29.5 29.5 29.9 29.9 30.0	3951 3948 3945 3939 3932 3932 3932 3923 3923 3914 3916 3906	73 5 9 73 5 4 73 4 3 73 4 2 73 3 2 73 3 3 73 1 9 73 0 2 73 0 3 72 5 C	C 70 ( 1625 C 701 1632 C 701 1622 C 700 1631 C 70C 1631 C 655 1630 C 657 1630 C 657 1630 C 701 1633 C 701 1633 C 701 1633 C 755 1628
E 1 2 3 E 5 5 E 6 6 7 7 F 8 E	0- 6 0- 6 0- 15 0- 15 18- 33 0- 15 18- 33 0- 15 18- 33	7 12 7 12 7 12 6 12 6 12 6 12 6 12 6 12 6 12 6 12 6	0118 0012 2222 2035 2035 1748	NEGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT CAY DAY CAY	13 17 19 35 39 42 42 67 67 103	7.5-7.9 8.4-E.4 8.8-8.8 9.2-5.3 9.3-9.3 9.2-5.3 9.4-9.4 10.5-10.5 10.5-10.7	7.9 8.4 8.8 5.3 5.3 9.4 9.4 10.5 10.6 11.2	7.9 8.8 5.3 5.3 9.4 9.4 10.5 10.6		NO NE CONO NO NE NO NE NO NE CONO NO	-	25.1-29.2 29.0-29.1 25.2-29.2 29.4-29.5 29.2-29.3 29.2-29.3 29.2-29.3 25.8-30.3 25.8-30.3 25.5-30.3	29.0 4 25.3 29.5 5 25.4 7 29.4 5 29.4 5 29.3 2 29.9 2 30.0 1 30.0	29.1 29.0 25.2 29.6 29.2 29.2 29.2 29.2 29.8 29.8 29.8 29.7	3517 3914 3511 3905 3859 3859 3854 3854 3854 3845 3845 3836	74 25 74 26 74 65 73 59 73 59 73 49 73 45 73 33 73 33 73 18	C 704 1625 0 704 1625 C 702 1634 C 701 1624 0 700 1634 C 700 1634 C 659 1633 C 659 1633 C 659 1632 C 657 1632 C 656 1622 C 656 1632
F 1 2 F 5 F 6 F 7 F 7	0-9 0-5 0-15 0-15 0-15 18-33 0-15 18-33	9 12 9 12 9 12 1 0 12	18C3 1901 0119 0243	NIGHT NIGHT NIGHT NIGHT NIGHT OAY CAY PAY DAY	17 17 28 20 34 34 46 46 68 68	7.2- 7.3 7.3- 7.4 7.5- E.2 9.1- 9.2 9.4- 5.4 9.4- 9.4 9.7- 5.7 9.7-10.0	7.3 7.3 E.1 9.2 9.4 c.4 9.7 5.8 10.2	7.3 7.9 9.2 9.4 5.4 9.7 5.7 10.2	7.0 7.4 8.3 9.1 9.4 9.4 10.0 10.0	AN CM AN OM AN OM AN OM AN OM AN OM AN OM AN OM AN OM AN OM AN OM	-	2 6. 4 - 28. 6 2 4. 3 - 24. 1 2 5. 4 - 25. 6 3 0. 1 - 30. 3 3 0. 1 - 30. 4 3 0. 4 - 32. 1 3 1. 6 - 32. 3 3 1. 9 - 33. 4	5 24.5 5 25.5 2 3C.1 2 30.1 4 30.2 4 3C.9 1 30.8 1 31.7	28.3 24.3 25.3 30.1 30.0 31.3 31.3 31.6	3846 3E43 3840 3835 3829 3829 3821 3821 3813	7458 7452 7441 7430 7430 7413 7413 7357	0706 1638 C706 1638 C705 1638 G706 1638 C704 1637 C702 1637 C702 1637 C702 1637 C702 1636 C702 1636
G 1 C 2 G 3 G 4 G 5 G 5 C 6	0- 3 0- 6 0-15 0-15 18-33 0-15	11 12 11 12 10 12 10 12 10 12 10 12 10 12 10 12	0119 2302 2126 1754 1754 1605	NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT DAY	11 12 18 25 48 48 75	8.4- 8.5 9.6- 5.1 9.8-10.0 10.1-16.2 10.0-10.0 10.5-10.5 10.5-10.5	10.0 10.0 10.5	1(.5	11.0	NO NE NO NE NO NE NO NE NO NE NO NE NO NE	-	31.6-21. 29.6-29.6 30.1-30.6 31.8-32.6 31.0-31.5 31.4-22.6 31.2-32.6 31.4-33.6	3 29.7 4 3C.3 2 32.0 5 31.3 8 32.3 0 31.7	31.9		7504 7459 744E 7438 7438 7438	C 707 1641 0 706 1641 0 705 1641 C 702 1640 0 704 1640 C 702 1639 C 702 1639
H 1 H 2 H 3 H 5 H 5 H 6 H 7 F 7	0- 6 0- 6 0- 15 0- 15 18-24 0- 15 19-33 0- 15	11 12 11 12 11 12 11 12 11 12 11 12 11 12 11 12 11 12 11 12	0718 0812 1237 1405 1409 1802 1802	DAY	8 15 23 25 38 77 77 110	8.4- 8.8 9.8- 9.9 10.6-10.5 10.7-10.7 11.2-11.5 11.2-11.2 10.5-10.5 10.5-10.5 10.7-10.7	10.7 11.4 11.2 10.5 10.5	1 C.5 1 C.7	9.9 10.7 11.2 11.2 11.0	A ADUAL PAR	-	2 E · 6 - 28 · 1 2 9 · 7 - 25 · 1 2 8 · 3 - 28 · 4 2 E · 1 - 30 · 1 3 3 · 6 - 34 · 1 3 3 · 6 - 34 · 1 3 3 · 6 - 33 · 6 3 3 · 3 - 33 · 1	3 25.7 4 28.3 C 25.2 5 33.5 O 32.9 O 34.0 E 33.3	29. 7 28.3 28.1 33.5 33.5 33.6	3734 3732 3730 3727 3723 3723 3718 3718 3716 3716	75 2 8 75 2 2 75 1 0 74 5 £ 74 5 8 74 4 C 74 4 0 74 3 4	0707 1644 C707 1644 C706 1643 0705 1643 C704 1642 0704 1642 C703 1642 C702 1641 C702 1641
J 1 J 2 J 3 J 4 J 5 J 6 J 6 J 7 J 7	0 = 3 0 = 6 0 = 6 0 = 15 0 = 15 18 = 24 0 = 15	1 2 12 1 1 12 1 1 12	1900 1030 11902 11903 1318 1318 2309		5 9 16 17 26 35 35 85	9.7- 9.9 9.8-10.2 10.6-10.9 10.5-11.0 11.0-11.0 11.6-11.0 10.5-10.5	10.0 10.5 11.0 10.8 11.0 11.0	9.7 5.8 10.0 10.9 10.9 11.0 11.0	10.8 10.9 11.0 10.8 11.0 11.0	9 N ON 9 N ON 9 N ON 9 N ON 9 N ON 9 N ON 9 N C N 9 N C N	-	25.8-30.8 30.3-30.8 30.5-32.3 32.8-32.6 32.5-34.6 37.6-23.3 33.6-33.3 32.5-33.3	3 30.6 1 31.4 8 32.8 0 33.1 3 32.2 1 33.0 3 33.0	29.8 30.3 30.5 22.8 34.0 23.0 33.0 32.5 22.5	3655 3655 3654 3653 3652 3650 3650 3648 3648	75 52 75 45 75 33 75 21 75 02 75 02 75 02	(704 1644 0707 1647 0707 1647 (706 1645 0705 1645 (703 1644 0702 1643 (702 1643
K 1 K 2 K 3 K 4	0- 6 0-15	12 12 12 12 13 12 13 12	23.41 00.38	NIGHT NIGHT NIGHT NIGHT	14 20 25 31	10.0-10.2 10.1-10.2 10.2-10.8 11.9-12.0	10.2 10.3	10.0 10.1 10.2 12.0	10.2 10.8	NONE NONE NONE NONE		31.5-32.0 32.5-32.0 33.3-34.0 33.5-34.0	8 32.6 0 33.7	32.5 33.3	3623 3623 3622 3622	7542 7536	0705 1648 C705 1648 C705 1647 0705 1647

CRUT D650- STA	SE TOW DEPTH	0A TE 19 65 D M	FON SFART FST	LIGHT CONC.	WA TER CEPTH (M)	**** TEM PE R ANG E			***** 80T.	THERME DEGREE		**** SAI	LINITY 10/001 MEAN	**** SUR F.			** SUN ** R IS I S ET
314.	1 1		. , .		* ' '						••••			30			
к 4	19-24	13 12	04 19	NIGHT	31	11.5-11.9	11.9	12.0	11.9	NONE	-	34. 3-34.5	34.5	33.9	3622	75 2 3	0705 1647
K 5	0-15	13 12	96 (7	NIGHT	35	11.3-11.5	11.3	11.5	11.3	NONE	-	32.5-22.9	32.6	32.9	3€22	75 1 1	(704 1646
K 5	18-24	13 12	0607	NIGHT	35	11.3-11.3	11.3	11.5	11.3	NONE	-	32.7-32.9	32.8	32.9	3622	75 1 1	0704 1646
K 6	0-15	13 12	0948	OAY	4.8	11.3-11.4	11.3	11.4	11.2	NONE	-	32.8-23.1	33.0	32.8	3621		0703 1645
к 6	18-33	13 12	0948	OAY	48	11.3-11.3	11.3	11.4	11.2	NO NE	-	33.2-33.3	32.2	32.8	3621		0703 1645
K 7	0-15	13 12	1139	DAY	260	10.3-10.3	10.3	10.3	10.5	NONE	-	32.4-33.6	33.5	33.4	3621		0702 1644
K 7	19-33	13 12	1138	DAY	26 C	10.3-1C.3	10.3	10.3	10.5	NONE	-	33.6-33.6	33.6	33.4	3621	74 4 €	C 7C 2 1644
l 1	0- 6	1.3 12	1939	NIGHT	18	11.3-11.5	11.4	11.3	11.7	NONE	_	33.6-34.6	34.2	34.6	3546	7530	(703 1649
L 2	0-6	13 12	2044	NIGHT	24	11.9-11.9	11.9	11.9	11.9	NONE	-	33.9-34.3	34.1	33.9	3546	7524	C703 1649
1 3	0-15	13 12	2152	NIGHT	35	12.1-12.4	12.3	12.4	12.2	NONE	-	34.1-34.2	34.2	34.2	3 546	7517	0702 1648
L 3	18-24	13 12	2152	NIGHT	35	12.2-12.2	12.2	12.4	12.2	NONE	-	33.9-34.1	34.0	34.2	3:46	7517	C 702 1648
1 4	0-15	14 12	0125	NIGHT	43	11.E-12.2	12.0	12.2	11.8	NONE	-	33.8-33.8	33.8	33.8	3545	75 0 5	0702 1647
L 4	19-33	14 12	01 25	NIGHT	43	11.8-11.8	11.0	12.2	11.8	NON É	-	32.8-33.9	33.8	33.€	3545	75 0 5	C702 1647
L 5	0-15	14 12	03 15	NIGHT	105	11.5-12.5	11.7	11.8	12.7		-	33.9-34.4		33.9	3545		C 70 1 16 46
L 5	19-33	14 12	0315	NIGHT	105	12.4-12.4	12.4	11.8	12.7		-	34.7-35.0	34.9	33.9	3545	7452	C 70 1 16 46
F 1	0-3	14 12	1838	NIGHT	13	12.4-12.4	12.4	12.4	12.5	NDNE	-	34.1-34.4	34.2	34 .1	3518	75 29	C 70 2 16 51
M 2	0- 9	14 12	1720	NIGHT	18	12.6-12.7		12.7	12.6	NONE	-				3516		0702 1651
м 3	0-15	14 12	1553	DA Y	2 C	12.7-12.8	12.7	12.8	12.7	NONE	-	33.2-34.5	33.6	34.5	3514		0.101 1650
M 4	0-15	14 12	14 45	CAY	26	13.0-13.1	13.1	12.1	12.8	NINE	-	34.1-34.5	34.2	34.5	3512	<i>T</i> 5 1 2	0701 1650
M 4	18-24	14 12	1445	DAY	26	12.8-13.0		13.1		NONE	-	34.2-34.2	34.2	34.5			C701 1650
₩ 5	0-15			CAY	90	23.1-23.1		22.1		GRADUAL	-					7507	0700 1649
M 5	18-33	14 12	1235	DAY	90	22.5-23.1	22.8	23.1	20.1	GR ADU AL	-				3510	75 0 7	C 700 1649
N 1	0- 6	15 12	00 05	N I GHT	19	14.3-14.4				NONE	-	34.6-34.8		34.6	3 50 1		0700 1650
N 2	0-15			NIGHT	24			18.4		ND N E	-	35.1-35.8		35.1			C70C 1650
Ν 3	0-15			NIGHT	25	17.5-17.5	17.5			NONE	-	35.3-36.5		36.5	3451		0703 1653
N 4	0-15			N1 GHT	4.5	19.1-20.6	20.1	20.6		GR ADUAL	_	36.3-36.8		36.8	3 44 2		0703 1654
N 4	18 - 33			NIGHT	45	17.6-1E.9	10.2			GR # OUAL	-	36.1-36.2		36.8	3442		0703 1654
۸ 5	0-15				128	20.5-20.5	20.5	20.5		GR ADUA L	-	36. 2-36.3		36.3	3 4 3 3		0702 1654
N 5	18- 33	15 12	0900	DAY	128	19.5-2C.4	20.2	20.5	17.0	GR ADUAL	-	36.2-36.3	36.3	36.3	3433	75 4 4	C7C2 1654
P 1		15 12		NIGHT	15	12.6-12.7				NONE	~	35.4-35.5			3 43 8		C706 1658
P 2		15 12		NIGHT	17	15.3-16.3		16.3		WEAK		36.2-36.4		36.4	3429		C 70 : 16 : 7
P 3	0-15	15 12		NIGHT	26	14.6-18.4	16.9	18.4		GRADUAL	-	36.2-36.2		36.2	3 42 1		0705 1658
P 4		1.5 12		DUSK	34	22.4-23.2	23.0			GR #DU AL	-	36.9-37.5	37.1	36.5	3413		C703 1657
P 4		15 12			34	19.3-22.3				GR ADUA L	-			36.9			C70 2 16 57
P 5		1.5 12			82	25.4-25.4				GR ADUAL	-	31.4-37.8		37.8	3 404		C 703 1657
P 5	18 - 33	15 12	1335	DAY	€2	25.4-25.4	25.4	25.4	23.5	GR # DU AL	-	37.2-37.7	37.5	37.8	3 40 4	76 1 3	C 7C 2 1657

	T CW DEPTH (M)	OATE IOW LIGHT I 1966 START CONO. O M FST	WATER DE PTH [M]	**** TEMPER RANGE			THERMOCLINE DEGREE OEPTH (M)			** SUN ** RISE SET
Δ 1 Δ 2	∩- 6 ∩-15	26 1 1627 DUSK 26 I 1729 NIGHT	1 é 3 3	1.1-1.1 0.8- C.9	1.I 1.1 C.9 C.8	1 .1 0.9	NONE -	32.3-22.3 32.3 32.4-32.4 32.4	32.3 4117 7048 32.4 4112 7347	
8 1 2 3 3 4 4 5 5 6 6 6 7 7	0-15 0-15 0-15 18-33 0-15 18-33 0-15 18-33 0-15 18-33	26 1 0653 DAWN 26 1 0542 NIGHT 26 1 0429 NIGHT 26 1 0429 NIGHT 26 1 0254 NIGHT 26 1 0254 NIGHT 26 1 0254 NIGHT 26 1 0115 NIGHT 26 1 0115 NIGHT 25 1 2347 NIGHT 25 1 2347 NIGHT 25 1 2144 NIGHT 25 1 2144 NIGHT	22 34 48 60 60 73 73 80 80 89	1.6- 2.1 2.4- 2.5 3.2- 3.2 3.2- 3.2 4.1- 4.1 4.1- 4.1 4.8- 4.8 4.9- 4.9 4.9- 4.9 4.6- 4.8 4.8- 4.8	1.8 1.6 2.4 2.5 3.2 3.2 2.2 2.2 4.1 4.1 4.8 4.8 4.9 4.9 4.9 4.9 4.8 4.8 4.8 4.8	2.1 2.7 3.2 3.2 4.1 4.8 4.8 4.9 4.9 4.8	NO NE -	30.9-31.6 31.2 32.0-32.2 32.1 32.3-22.3 22.3 32.3-32.4 32.3 31.9-32.3 22.3 31.9-32.3 32.2 32.3-32.5 32.4 32.3-32.4 32.4 32.3-32.4 32.4 32.3-32.4 32.4 32.3-32.4 32.4	30.9 4103 7151 32.2 4058 7149 22.3 4054 7147 32.3 4054 7147 32.3 4064 7144 32.3 4034 7140 32.3 4034 7140 32.3 4007 7135 22.3 4007 7135 22.4 4005 7129	C 703 16 57 C 7C3 16 57 O 702 16 57 C 702 16 57 O 701 16 55 C 701 16 55
C 1 2 2 3 3 C C 4 4 C C 5 C C C C C C C C C C C C C	7-15 0-15 0-15 18-24 0-15 18-24 0-15 18-33 0-15 18-33 0-15 18-33	2 2 01C6 NIGHT 2 2 0158 NIGHT 2 2 0257 NIGHT 3 2 20257 NIGHT 3 2 2042 NIGHT 3 2 2048 NIGHT 3 2 208 NIGHT 4 2 0010 NIGHT 4 2 0010 NIGHT 4 2 0220 NIGHT 4 2 0220 NIGHT 4 2 0220 NIGHT 4 2 0220 NIGHT 4 2 0240 NIGHT 4 2 0240 NIGHT 4 2 0408 NIGHT	21 26 32 32 35 35 48 48 57 57 67 67 110	-0.6- C.9 -0.3- 1.7 I.5- 2.0 2.1- 2.1 3.C- 3.1 3.C- 2.0 3.8- 3.8 3.6- 2.6 4.3- 4.3 4.2- 4.2 4.7- 5.0 5.0- 5.0 5.8- 5.8	C.3 - C.8 1.4 - C.3 1.8 I.5 2.1 I.5 3.0 3.1 3.8 3.8 3.8 3.8 4.3 4.3 4.2 4.3 4.8 4.7 5.0 4.7 5.8 5.8	0.9 1.7 2.1 3.0 3.0 3.8 4.2 4.2 7.1 7.8 7.8	MEAK 2-9 MEAK 0-5 NONE - MEAK 47-56 MEAK 47-58 MEAK 63-88	3 C.7-32.6 31.9 31.7-72.5 22.3 32.2-32.5 32.3 32.4-32.5 32.4 32.4-32.6 32.5 32.3-32.6 32.5 32.4-52.6 32.5 32.5-32.6 32.6 32.5-32.6 32.6 32.6-32.6 32.6 32.6-32.6 32.6 32.6-32.6 32.6 32.6-32.6 32.6 32.6-32.3 33.3	30.7 4035 7317 31.7 4031 7314 32.3 4027 7310 32.3 4027 7310 32.4 4019 7303 32.4 4019 7303 32.5 4010 7255 32.5 4010 7255 32.6 3958 7244 32.6 3558 7244 32.6 3568 7243 32.6 3566 7233 33.1 3934 7222	C702 1711 C702 1711 C702 1712 O702 1712 C704 1716 O704 1716 C659 1712 O657 1713 C657 1713 O656 1712 C655 1713 C655 1713
D 1 D 2 D 3 D 4 D 5 D 6 C 7 D 7 D 8	0-6 0-6 0-15 0-15 0-15 19-24 0-15 18-33 0-15 18-33	4 2 1729 NIGHT 4 2 4816 NIGHT 4 2 1910 NIGHT 4 2 2029 NIGHT 4 2 2220 NIGHT 4 2 2220 NIGHT 4 2 1210 DAY 4 2 1210 DAY 4 2 1016 DAY	16 22 25 27 37 37 50 50 70 70 110	0.8- 0.9 1.4- 1.4 1.5- 1.5 2.4- 2.4 2.5- 2.9 3.2- 3.2 3.1- 2.1 4.8- 4.8 4.6- 4.9 4.6- 5.0 5.6- 5.1	C.9 C.8 1.4 1.4 1.9 1.9 2.4 2.4 2.9 2.9 3.2 3.2 3.1 3.2 4.8 4.8 4.8 4.8 4.9 4.8 5.0 4.8	0.9 1.5 1.9 2.4 2.9 2.9 3.1 7.1 7.1 7.2 7.2	NONE - NONE - NONE - NONE - NONE - NONE - NONE - NONE - WEAK 47-55 WEAK 47-55 WEAK 91-99	31.8-31.9 31.9 32.5-32.5 32.5 32.7-32.8 32.7 32.6-33.0 32.9 32.9-33.1 32.9 33.3-33.5 33.5 32.6-22.7 32.6 32.7-33.1 32.9 32.5-33.3 33.0 32.1-33.3 33.1 32.0-33.2 33.1 32.0-33.2 33.1	31.8 3951 74 04 22.4 3548 7359 32.7 3945 7354 32.9 3939 734 3 32.8 3932 7332 32.6 3523 7315 32.6 3923 7315 32.6 3923 7315 32.9 3914 7303 32.9 3914 7303 33.0 3906 7250 23.0 3906 7250	070 £ 1722 C702 1718 0701 1718 0700 1718 C655 1717 C658 1717 C658 1716 0658 1716 0700 1719 C70C 1719 0655 1715 C655 1715
F 1 F 2 F 5 F 5 F 6 F 7 F 7 F 8	0-6 0-6 0-6 0-15 0-15 18-24 0-15 18-24 0-15 18-33 0-15 18-33	5 2 0321 NIGHT 5 2 0415 NIGHT 5 2 0625 0A\$N 5 2 0804 DAY 5 2 0804 DAY 5 2 0803 DAY 5 2 0933 DAY 5 2 1126 DAY 5 2 1126 CAY 5 2 1326 CAY	14 17 20 30 37 37 42 42 66 66 121	-1.41.3	-1.8 -1.8 -1.3 -1.4 -0.5 -0.5 1.3 1.3 2.9 2.9 2.9 2.9 3.9 3.9 3.9 3.9 4.8 4.8 5.6 5.6 5.6		NO NE - NO NE - NU NE - NO NE - GRADUAL - NO NE -	3C.5-2C.7 °C.6 31.6-31.7 31.7 31.0-33.2 32.3 22.5-22.2 22.9 32.6-33.3 32.8 32.2-33.8 32.6 32.7-33.7 32.1 33.5-34.0 33.9 32.6-34.0 33.9 33.5-34.2 33.8 32.6-33.6 33.6 33.6-33.7 33.6	30.7 3917 7.31 31.6 3914 7425 31.0 3911 7420 33.C 39C5 706 32.8 3859 7359 32.6 3859 7359 32.6 3854 7349 33.6 3854 7343 33.6 3855 7333 33.6 3855 7338	0 70 2 1722 C 101 1723 0 700 1722 0 70C 1722 0 659 1721 0 659 1721 C 656 1720 0 658 1720 C 656 1719 0 655 1719
F 2 F 3 F 4 F 5 F 6 F 6 F 7	0- 6 0-15 0-15 0-15 18-24 0-15 18-33 0-15 18-33	6 2 0520 NIGHT 6 2 0359 NIGHT 6 2 04242 NIGHT 6 2 04109 NIGHT 6 2 04109 NIGHT 5 2 2246 NIGHT 5 2 2246 NIGHT 5 2 1747 NIGHT 5 2 1747 NIGHT	22 24 26 34 34 52 78 78	-1.61.6 -1.4 C.6 0.7- 0.9 1.5- 1.8 1.5- 1.5 5.1- 5.1 5.1- 6.1 5.4- 5.4 5.4- 5.4		-1.3 0.5 0.8 1.5 1.5 5.1 6.3	NONE -	30.7-21.8 21.2 31.1-32.4 31.6 32.6-32.2 32.7 32.6-33.2 32.0 33.2-33.4 33.3 32.3-24.3 32.7 33.8-34.1 34.0	30.7 3643 7456 31.2 3840 7452 32.6 3835 7441 32.6 3829 7430 32.6 3829 7430 33.3 3821 7412 33.3 3821 7413 34.5 3813 7357 34.5 3813 7357	0700 1726 0700 1726
G 1 G 2 G 3 C 4 G 5 C 6 G 6	0- 6 0- 15 0- 15 0- 15 0- 15 18- 33 0+ 15 I9- 33	6 2 1946 DAY 6 2 1946 DAY 6 2 1147 DAY 6 2 1147 DAY 6 2 1127 NIGHT 6 2 1428 DAY 6 2 1611 DAY 6 2 1611 CAY	13 16 21 27 52 52 86 86	-0.10.1 0.6- C.8 1.1- 1.2 2.6- 2.7 3.6- 3.7 3.9- 4.1 5.5- 5.5 5.3- 5.5	-0.1 -0.1 C.8 C.8 1.2 1.1 2.6 2.6 3.6 3.6 4.0 3.6 5.5 5.5 5.4 5.5	-0.1 0.8 1.1 2.8 4.3 4.3 5.3	NONE - NONE - NONE - NONE - NONE - NONE - NONE -	32.5-22.6 22.5 33.3-33.3 33.3 32.3-23.5 33.4 32.7-33.3 33.0 33.0-33.2 33.1 33.4-23.9 22.7 33.6-34.1 33.9 34.2-24.5 34.3	22.4 36C7 75 CS 33.2 3804 75 04 33.4 3801 74 59 32.7 3756 74 44 33.0 3750 74 38 23.C 3750 74 38 33.7 3742 7422 33.7 3742 7422	C701 1729 0700 1728 C700 1728 C455 1727 0659 1728 C455 1728 C455 1727 C458 1727
F 1 H 2 H 3 H 4 F 5 H 6 F 6 H 7 F 7	0- 3 0- 6 0- 6 0- 15 0- 15 18-24 0- 15 18-33 0-15	7 2 1253 NIGHT 7 2 102C0 NIGHT 7 2 102C0 NIGHT 6 2 2322 NIGHT 6 2 22C6 NIGHT 6 2 22C6 NIGHT 6 2 22C1 NIGHT 6 2 22C1 NIGHT 6 2 22C1 NIGHT 6 2 12C2 NIGHT 6 2 12C2 NIGHT	11 16 22 27 35 35 83 83 129 129	-0.2- 1.4 0.5- 0.7 1.5- 1.6 2.8- 2.8 4.5- 4.7 4.7- 4.7 5.5- 5.8 5.2- 6.5 7.8- 7.9 6.7- 7.8	-C.2 -C.2 0.6 0.5 1.6 1.5 2.8 2.8 4.6 4.5 4.7 4.5 5.7 5.8 6.4 7.8 7.9 7.6 7.9	0.2 0.7 1.6 2.8 4.7 4.7 5.5 5.5 5.5	NONE - NONE - NINE - NONE - NONE - NINE - NINE - STRONG 31-40	31.5-31.7 31.6 31.6-22.0 21.8 32.2-32.4 32.3 32.7-23.0 37.9 32.2-33.6 33.4 32.5-33.5 33.5 34.6-24.2 34.1 34.7-34.3 34.3 34.2-34.5 34.4 34.4-34.9 34.5	32.2 3730 7522 32.7 3727 7510 33.1 3723 7455 33.1 3723 758 34.0 3718 7440 34.0 3718 7440	0 10C 1732 C70C 1732 0 659 1731 0 100 1730 C 655 1729 0 659 1729 C 656 1729 0 657 1728 C 657 1728

CR UI SE [660]	TOW DEPTH (M)	DA 196	66		LI CHT	WATER DERTH LM1	**** TEMPE RANGE		(C) SURF.	***** 80T.		CLINE DEFTH		LINITY (0/00) FEAN	**** SURF.	LAT. I		** SUN ** RISE SET
STA.	( 77)	U .	-	E2 1		( - 1						( ,,	R A AG E	PEAN	SURF.			
Jl	0-6	7	ŝ	0721	DAY	11	0.4- C.7	C.5	C.7	0.4	NO NE	-	30.2-30.8	30.4	30.7	3655	7558	0657 1731
J 2	0- 6	7	2	0812	EAY	12	0.6- 0.6	0.6	0.6	0.6	NONE	-	30. C- 3C. 4	30.2	30.0	3655	7552	C 700 1734
J 3	0- 6	7		11966		12	1.1-1.2	1.2	1.1	1.2	NONE	-	31.5-31.7		31.4	3654		C70C 1734
J 4	0-15		2	1030	EAY	20	2.4- 2.6	2.4	2.6	2.4	NONE	-	32.3-32.7		32.2	3653		0659 1733
J 5	0-15	7		1143	DAY	26	3.5- 3.6	3.5	3.6	3 .5	NON E	-	32.9-33.0		32.9	3652		C 658 1732
J 6	0-15	7		1321	DAY	2.5	5.1- 5.4	5.1	5.4	5.3	NONE	-	33.4-33.6		33 .4	3650		0657 1731
J 6	19-24		2	1321	DAY	35	5.1-5.3	5.2	5.4	5.3	NONE	-	33.6-23.7		33.4	3650		C657 1731
J 7	0-15	7	2	1514	DAY	84	7.1- 7.3	7.2	7.1	7.7		-	33.7-34.2		33.7	3648		C656 1731
J 7	18-33	7	Z	1514	CAY	84	7.4- 8.4	7.1	7.1	7.7		-	34.C-34.5	34.1	33.7	3648	1444	C 656 1731
K 1	0-6	8	2	0138	NIGHT	15	1.5- 1.6	1.5	1.6	1.5	NONE	-	30.9-31.2	31.1	30.9	3623	75 4 8	0659 1736
K 2	0-15	8	2	00 38	NTGHT	25	1.5- 1.9	1.6	1.8	2.1	NONE	-	31.2-32.1		31.2	3623		0659 1736
K 3	0-15	7	2		NIGHT	22	3.4- 3.8	3.5	3.8	3.4	MONE	-	32.6-32.6		32.6	3622		Cess 1734
K 4	0-15		2		NIGHT	31	4.1- 4.1	4.1	4.1	4.1	NONE	-	32.6-32.8		32.6	3 62 2		0659 1734
K 5	0-15		2		NIGHT	34	5.1- 5.1	5.1	5.1	5 .2	NONE	-	33.3-33.3		33.2	3622		C658 1733
K 5	18 -2 4	7			NIGHT	34	5.1- 5.1	5.1	5.1	5.2	NONE	-	33.3-33.3		33.2	3622	-	0658 1733
K 6	0-15		2		NIGHT	50	14.4-14.8	14.7	14.4	13.2	NONE	-	34.9-35.1		34.9	3621		C657 1732
K 6	19-33		2		NIGHT	5 C	13.4-14.7	14.0	14.4	13.2	NONE		35.0-35.0		34.9	3621		(657 1732
K 7	0-15	7			NIGHT	725	16.C-16.0	16.0	16.0	11.5		74-92	35.3-35.3		35.3	3621		C656 1731
к 7	18-33	7	2	1867	NIGHT	725	16.C-16.C	16.0	16.0	11.5	WEAK	74-92	35.3-35.4	35.4	35.3	3 6 2 1	14 4 E	C 656 1731
l 1	0-6	8	2	0711	E AY	19	2.0- 2.4	2.2	2.4	2.0	NONE	-	31.9-31.9	31.9	31.9	3546	75 30	0657 1736
L 2	0- 6	8	2	41824	DAY	23	3.3- 3.4	3.4	3.3	3.4	NONE	-	32.4-32.4	32.4	32.3	3546	75 2 4	C657 1736
L 3	0-15	8	2	0927	CAY	34	3.9- 4.1	4.0	4.1	3.9	NONE	-	32.6-32.9	32.7	32.6	3546	75 1 7	0656 1735
L 3	18-24	8	2	0927	DAY	34	3.9- 3.9	3.9	4.1	3.9	NONE	-	32.8-32.8	32.8	22.6	3546	7517	C656 1735
1 4	0-15	8	2	10 50	DAY	48	5.C- 5.1	5.1	5.1	4.8	NONE	-	32.8-32.9	32.9	32.8	3545		0655 1734
L 4	18-33	8	2	1050	EAY	48	4.8- 4.9	4.8	5.1	4.8	NONE	-	33.0-33.0	33.0	32 . 8	3545		0655 1734
t 5	0-15		2	1225	DAY	145	13.5-14.5	14.4	14.5		GR / CUAL	-	34.7-35.0		35.0	3545		C654 1733
t 5	19-33	8	2	1225	DAY	145	12.2-13.2	12.7	14.5	11.1	GP ADUAL	-	34.6-34.9	34.7	35.0	3545	7452	0654 1733
F 1	0- 6	я	2	1633	DAY	13	3.2- 3.4	3.3	3.4	3.3	NONE	_	31.6-31.6	31.6	31.6	3518	75 2 9	C656 1737
M 2	0- 6	Я	2	1726	DUSK	20	3.7- 3.8	3.8	3.7	3.9	NONE	_	31.7-21.7		31.7	3516	75 2 3	0656 1737
м з	0- 6	8	2	1822	NIGHT	2.0	3.5- 3.9	3.9	3.9	4.0	NONE	-	32.3-32.3	32.3	32.3	3514	75 1 E	C 65 5 1736
P 4	0-15	8	2	1915	NIGHT	42	5.3- 5.4	5.3	5.4	5.3	NONE	-	32.2-33.2	32.7	32.8	3512	7512	0655 1736
M 4	18-33	8	2	1915	NIGHT	42	5.3- 5.3	5.3	5.4	5.3	NON E	-	32.0-33.1	32.1	32.8	3512	75 1 2	C655 1736
M 5	0-15	8	2	20.18	NIGHT	139	12.2-17.0	16.0	17.0	10.0	S TRO NG	9-16	34.0-35.1		35.1	3510		0654 1735
M 5	18-33	8	2	2018	N1 GHT	139	10.0-11.5	10.6	17.0	10.0	STRONG	9-16	34.2-34.4	34.3	35.1	3510	75 0 7	0654 1735
N 1	0- 6	9	2	0034	NIGHT	19	5.5- 5.8	5.6	5.5	6.4	NO NE	_	31.3-31.5	31.4	31.3	3501	75 5 7	0652 1736
N 2	0-15		2		NIGHT	24	7.9- 8.6	8.1	7.9		GR ADUAL	-	32.7-33.1		32.7	3 456	75 5 5	C652 1737
N 3	0-15		2		NIGHT	30	7.7- 5.0	8.3	7.7		GR ADUAL	-	32.6-32.9		32.7	3 4 5 1		C655 1740
N 4	0-15	9	2	0351	NEGHT	44	20.3-20.4	20.4	20.3	16.5	GR ADUAL	-	35.4-35.6	35.5	35.4	3442	75 4 8	0655 1740
N 4	18-33	9	2	03 51	NIGHT	44	17.0-20.3	19.0	20.3	16.5	GR #DU AL	-	35.6-35.7	35.6	35.4	3442	75 4 E	C655 1740
N 5	0-15	9	2	0509	NIGHT	82	19.2-19.4	19.3	19.4	16.6	GR ADUAL	-	35.3-35.5	35.5	35.3	3 433	75 4 4	0655 1740
N 5	19-33	9	2	05 (9	NIGHT	82	18.5-18.8	18.6	19.4	16.6	GR ADU AL	-	35.3-25.4	35.4	35.3	3433	75 4 4	C €55 1740
F 1	0- 6	9	2	13 37	DAY	16	6.5- 6.5	6.5	6.5	7.1	NONE	-	33.5-33.5	33.5	33.5	3 438	75 4 C	C 659 1744
P 2	n- 6	ģ		1244	DAY	17	7.2- 7.6	7.4	7.6	6.5	NONE	-	33.2-33.3		33.2	3434		C65E 1743
P 3	0- 6	ģ		1154	EAY	17	9.1- 5.6	5.3	5.6	9.1	NONE	_	3 3.8-33.9		33.9	3 429		0658 1743
p 4	0-15		2	1 033	CAY	31	14.1-17.0	15.8	17.0	13.1	WEAK		34.5-35.4		35.4	3417		(657 1744
F 5	0-15		2	0848	DAY	60	20.C-2C.C	20.0	2 C. O		GR ADUA L	-	35.5-35.6		35.4	3404		C656 1743
F 5	18-33	9			CAY	60	19.6-19.9	19.8	20.0		GRADUAL	-	3 . 4 - 35 . 5		35.4	3 4 0 4		0656 1743

CRUI 56 66603 STA.	TOW DEPTH (M)	DA TE 1966 D F		LIGHT COND.	WATER DEPTH (P)	*** * * † { R A NG F			***** 80T.		OCLINE DEPTH (M)		ALINITY (0/00) (EAN	**** SURF.	LAT. L		** SU R 1S E	
A 1 A 2 A 3 A 4 A 4 A 5 A 6 A 6 A 7 A 7	0-6 0-15 0-15 19-33 0-15 18-33 0-15 18-33 0-15 18-33 0-15	6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1911 2110 2110 2238 2238 0029 0029 0208 0208 0355	DUSK NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT	23 36 47 47 51 51 62 73 73 111	3.6-3 3.4-3 3.6-3 3.6-3 3.6-3 3.6-3 3.6-3 3.6-3 3.6-3 3.6-3	3.5 3.5 3.4 3.1 3.7 3.6 3.2 2.0 3.7 3.7 3.5 3.7 3.6 3.7 3.6 3.7 3.6 3.7 3.6 3.7 3.6 3.7 3.6 3.7 3.6 3.7 3.6 3.7 3.7 3.6 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7 3.7	3.6 3.5 3.5 3.6 3.7 3.7 3.7 3.7	3.7 3.0 3.0 2.8 2.7 2.7 2.7 2.7 2.7 3.9	NONE NONE NONE NONE NONE NONE NONE NONE		31.6-31. 31.7-32. 32.0-32. 29.1-32. 21.9-32. 29.4-22. 32.6-33. 33.2-33. 33.1-33. 33.5-22.	1 32.0 3 32.1 3 30.1 5 32.2 4 30.5 4 32.0 6 33.4 2 32.7 7 33.5 5 33.3	31.7 32.0 32.0 32.0	4117 7: 4112 7: 4107 7: 4107 7: 4057 7: 4057 7: 4047 7: 4047 7: 4032 7: 4017 7:	3 47 0 46 0 46 0 4 4 0 4 2 0 4 2 0 4 0 0 4 0 0 3 7	0519 0515 0515 0515 0515 0516 0518 0518 0518 0517	1813 1813 1813 1813 1813 1814 1814 1814
P 1 2 8 3 8 4 4 8 5 5 8 6 8 7 8 7	0+ 6 0- 15 0- 15 18- 33 0- 15 18- 33 0- 15 18- 33 0- 15 18- 33 0- 15	7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4 7 4	16 50 15 56 14 55 14 55 13 24 11 56 10 05 10 05 08 01 08 01	CAY CAY CAY DAY CAY CAY CAY CAY CAY CAY CAY CAY CAY C	24 35 52 52 62 77 17 87 87 95	4 · 7 - 4 6 · 2 - 6 4 · 8 - 5 4 · 7 - 4 5 · 3 - 5 5 · 0 - 5 4 · 2 - 4 3 · 7 - 4 4 · 4 - 4 4 · 1 - 4 3 · 5 - 3 3 · 4 - 3	6.6 6.4 6.0 4.9 6.7 4.7 6.3 5.2 6.9 4.5 6.1 3.9 6.1 3.9 6.3 4.3 6.3 4.3 6.3 4.3	4.7 6.4 5.0 5.5 5.5 4.9 4.7 4.7 3.9	4.7 6.1 4.7 4.8 4.8 3.9 2.8 2.8 3.3			30.3-30.31.7-22.31.4-22.25.6-30.32.8-33.32.7-24.31.0-22.32.2-23.32.2-23.33.4-333.33.4-333.4-333.33.4-333.4-333.33.4-334.4-334.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-344.4-34	2 32.1 1 32.0 9 30.2 5 33.2 1 33.9 5 31.6 7 31.9 2 32.8 3 33.2 4 33.1	30.3 31.6 31.4 31.4 32.7 32.7 31.0 31.0 31.0 32.2 32.2 32.4	4103 7: 4058 7 4054 7: 4054 7: 4044 7: 4034 7: 4034 7: 4034 7: 4030 7: 4020 7: 4005 7:	145 147 147 144 146 140 135 135	0521 0521 0521 0522 0522 0522 0522 0521 0521	1818 1818 1818 1818 1818 1818 1816 1816
C 1 C 2 C 3 C 4 C 5 C 6 C 7 C 7 C 7 C 8	0-15 0-15 0-15 18-24 0-15 18-33 0-15 18-33 0-15 18-33 0-15 18-33	8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	00 58 01 56 01 56 03 16 03 16 04 45	NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT DAY DAY DAY CAY DAY	21 28 33 44 44 50 58 69 69 273 273	4.5-5 4.0-5 4.2-4 3.5-5 4.5-5 5.0-5 5.3-5 5.0-5 4.4-5 4.4-4 4.4-4 4.4-4 4.4-4	5.0 9.4.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	5.0 5.2 4.9 5.0 5.0 5.2 5.9 5.9 5.5 5.5 5.2	3.5 4.0 3.9 3.9 4.4 5.1 5.3 5.3 5.2 5.7	B NON B NON		31.7-32. 31.6-32. 31.6-21. 32.6-33. 33.4-23. 33.6-34. 33.9-34. 32.9-33. 33.9-34. 33.9-34. 33.9-34. 33.8-34. 32.6-23.	5 32.1 4 3C.9 7 31.6 9 33.1 9 33.7 8 33.7 3 34.0 8 33.3 2 34.1 7 32.6 0 33.9 5 33.3	31.7 31.6 30.7 30.7 32.5 33.6 33.6 32.9 32.9 33.5 33.5 33.5	4035 7 4031 7 4027 7 4019 7 4019 7 4010 7 4010 7 4010 7 3958 7 3958 7 3956 7 3946 7 3934 7 3934 7	314 310 310 303 255 255 244 233 233 222		1825 1824 1824 1827 1827 1823 1823 1822 1822 1822 1821 1821
n 1 2 3 4 6 5 5 6 6 6 7 7 6 8 E 8	0- 6 0- 6 0- 15 0- 15 0- 15 19- 33 0- 15 19- 33 0- 15 18- 33 0- 15	99988E88B8B8	01 25 00 25 23 17 21 27 21 27 19 30	NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT DAY CAY DAY	18 19 21 32 40 40 57 57 74 74 121	5.9-6 6.1-8 5.5-6 5.4-6 5.2-5 5.6-6 5.2-5 5.2-5 5.2-5	6.1 6.1 6.1 6.1 6.0 5.7 6.3 5.2 6.2 6.1 6.5 5.4 6.5 5.4	6.0 6.1 6.1 6.0 6.2 6.2 5.3 5.5	5.5 5.3 5.6 5.1 5.2 5.2 5.2 5.2 5.1 6.7 6.7	NONE NONE NONE NONE NONE NONE NONE NONE	- - - - - - - - - - - - - - - - - - -	30.8-21. 31.5-32. 31.4-22. 31.8-32. 32.0-33. 33.4-22. 33.0-33. 32.6-34. 32.3-33. 33.6-33. 33.6-33.	0 31.8 7 32.1 7 32.4 1 32.6 9 32.6 9 33.5 4 34.1 5 33.3 8 33.7 1 33.5	30.8 31.4 31.8 31.9 31.5 32.9 32.9 32.2 33.2	3551 7. 3945 7. 3945 7. 3939 7. 3932 7. 3932 7. 3923 7. 3923 7. 3914 7. 3914 7. 3906 7.	359 354 342 333 333 319 319 302 303 250	C532 C528 O528 C528 C528 C527 C527 C530 C530 C525	1828 1828 1826 1825 1825 1823 1823 1826 1826
E 1 2 3 4 4 5 5 6 6 6 7 7 8 8	0-6 0-15 0-15 18-24 0-15 18-24 0-15 18-33 0-15 18-33	22 4 22 4 22 4 22 4 22 4 22 4	02 2R +9 12 +7 56	CAY CAY CAY CAY CAY	14 19 22 33 37 37 45 45 45 65 134	6.7-6 6.4-8 7.4-7 6.E-7 6.5-1 6.3-6 6.3-6 6.4-6 6.4-6 5.2-6 5.2-6 5.0-5	4 6.4 6 7.5 1.3 1.2 7.0 1.4 6.3 1.0 7.0 1.7 6.5 1.1 5.6 1.5 6.1	6.7 £.4 7.5 7.5 7.5 7.2 7.0 7.0 £.7 6.7 6.5 6.5	6.7 6.6 7.4 6.6 6.3 6.3 6.4 6.4 5.3 5.3 4.6	NONE NONE NONE NONE NONE NONE NONE NONE		30.7-30. 30.8-31. 31.4-31. 31.4-31. 31.6-31. 31.6-31. 31.6-32. 31.6-22. 31.7-22. 31.4-31. 31.6-31.	0 30.9 4 31.3 7 31.5 7 31.7 9 31.6 8 31.7 1 32.0 1 31.9 8 31.7 0 31.8 9 31.7	31.5	3 5 1 7 7 3 9 1 4 7 4 3 9 1 1 7 4 3 9 0 5 7 3 8 5 9 7 3 8 5 4 7 3 8 5 4 7 3 8 4 5 7 3 8 3 6 7 3	425 420 409 359 349 345 3333 3318		1823 1841 1841 1841 1839 1829 1838 1838 1837 1837
F 1 F 2 F 3 F 4 F 5 F 6 F 6 F 7	0-15 0-15 0-15 19-33 0-15 13-33	14 4 14 4 14 4 14 4 14 4 14 4 14 4		CAY DAY CAY CAY DAY DAY DAY DAY CAY NIGHT	20 20 21 24 40 40 52 52 70	6.8-6 6.5-6 6.3-6 5.E-5 5.7-5 6.2-6 6.2-6 5.0-5	6.7 6.4 6.2 8.8 5.8 5.8 5.8 6.3 6.3 6.3	6.9 6.5 6.3 5.8 6.3 6.3 5.0	6.8 6.3 6.1 5.7 5.7 6.2 6.2 5.4	NO NE	-	28. 2-29. 30.0-30. 31.1-31. 31.3-31. 32.1-32. 32.4-32. 32.4-32. 32.4-32. 32.5-32. 32.5-32.	3 3(.1 4 31.2 7 31.5 2 32.2 5 37.4 3 32.3 6 32.6 5 32.4	28.2 30.0 31.0 21.3 32.1 32.1 32.1 32.1 32.1	3846 7: 3843 7: 3840 7: 3835 7: 3829 7: 3821 7: 3821 7: 3813 7:	458 452 441 430 430 413 413	0526 C526 C525 C525 C524 O524 C523 C523 C523	18 36 18 35 18 35 18 33 18 33 18 32 18 32 18 32
G 1 C 2 G 3 C 4 G 5 G 5 C 6 G 6	0-15 0-15 18+33 0-15	15 4 15 4 15 4	43 23 42 04 140 45 46 45 22 45	DAY NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT	15 16 24 38 57 57 94	6.5-6 6.7-6 6.0-6 6.0-6 6.5-6 5.0-5	.7 6.7 .1 6.1 .1 6.1 .5 6.5 .5 6.5	6.9 6.7 6.1 6.0 6.5 6.5	6.9 6.3 6.0 6.1 6.5 6.5	NO NE NO NE NO NE NO NE NO NE NO NE NO NE	-	29.5-30. 3	R 30.7 1 31.9 4 32.3 8 32.7 P 32.7 3 32.1	29.9 30.6 31.2 32.1 32.4 32.4 22.0	3807 7 3804 73 3801 74 3156 74 3750 74 3750 74 3742 74 3742 74	504 455 44E 438 43E	C 52 6 O 52 5 C 52 5 C 52 4 O 52 5 C 52 5 C 52 5 C 52 5 C 52 5	1836 1836 1835 1835 1835

CPUISE TOW D6603 OEPTH STA. (M)	DATE ION LIGHT 1 1966 START COND. D M FST	WATER **** TEMP! DEPTH RANGE (M)		*** THERMOCLINE BT. DEGREE DEPTH (M)		**** POSITION ** SU LAT. LONG. RISE SURF.	IN ** SET
H 1 0- 6 H 2 0-15 H 3 0-15 H 4 0-15 H 5 0-15 H 5 18-24 H 6 0-15 F 6 18-33 H 7 0-15 H 7 18-33	15 4 1452 DAY 15 4 1548 DAY 15 4 4712 OAY 15 4 1911 NIGHT 15 4 1911 NIGHT 15 4 2210 NIGHT 15 4 2210 NIGHT 15 4 2320 NIGHT	15	8.5	3.4 NONE - 3.5 NONE - 7.0 NONE - 7.2 NONE - 7.6 NONE - 7.6 NONE - 7.6 NONE - 7.7 NONE - 7.8 NONE - 7.9 NONE - 7.9 NONE - 7.9 NONE - 7.9 NONE -	31.0-21.0 31.0 31.4-21.9 31.7 32.3-32.6 32.6 31.6-32.0 31.9 36.2-32.4 32.4 32.4-32.5 32.5 32.4-32.7 32.5 32.4-32.5 32.5 32.4-32.6 32.5 32.4-32.6 32.5	30.9 3734 7533 C528 31.4 3732 7528 0528 22.3 3730 7527 C527 31.6 3727 7510 0527 22.3 3723 7456 C526 32.3 3723 7458 0526 32.6 3718 7440 0525 32.6 3718 7440 C525 32.3 3716 7434 0524 32.3 3716 7434 0524	1837 1836 1836 1835 1835 1834 1834 1833
J 1 0-6 J 2 0-6 J 3 0-6 J 4 0-6 J 5 0-15 J 6 0-15 J 6 18-24 J 7 0-15 J 7 18-33	19 4 1216 DAY 16 4 0925 CAY 16 4 07(7 DAY	16 10.5-11.5 13 9.4-1C.8 19 8.5-8.9 27 8.0-8.0 30 7.7-7.9 58 7.0-7.4 58 6.5-6.9 92 6.7-6.8	10.0 10.8 9 8.9 8.9 8 8.0 8.0 7 7.8 7.9 7 7.3 7.4 6 6.9 7.4 6	9.9 GRADUAL - 0.4 GPADUAL - 0.5 GRADUAL - 7.8 NONE - 7.7 NONE - 0.9 NONE - 0.9 NONE - 0.4 NONE - 0.4 NONE -	23.6-27.5 25.8 26.4-30.8 25.0 31.6-31.8 31.8 31.7-31.8 21.7 31.8-32.1 32.0 32.6-32.6 32.3 32.4-32.5 32.5 32.3-32.5 32.4 32.5-22.7 26.6	23.5 3655 7558 C521 26.4 3655 7552 C524 31.8 3654 7545 C528 21.7 3653 7533 C527 31.8 3652 7521 0526 32.0 3650 7502 C525 32.0 3650 7502 C525 32.4 3648 7444 0524 32.4 3648 7444 C524	1841 1828 1837 1836 1835 1835
K 1 0-6 K 2 0-15 K 3 0-15 K 4 0-15 K 5 0-15 K 5 18-24 K 6 0-15 K 6 18-33 K 7 0-15 K 7 18-33	19 4 15 28 DAY 19 4 16 17 DAY 19 4 17 15 CAY 19 4 18 23 DUSK 19 4 19 53 NIGHT 19 4 21 15 NIGHT 19 4 21 15 NIGHT 19 4 22 43 NIGHT 19 4 22 43 NIGHT	17 10.3-10.4 24 8.5-10.4 26 8.E-11.2 32 7.6-8.9 37 8.1-0.6 37 7.7-7.9 43 7.4-0.3 43 7.3-7.3 681 6.3-7.3 681 5.5-6.2	9.7 10.4 8 9.6 11.2 8 8.2 8.9 7 8.5 8.8 7 7.8 8.8 7 7.9 8.3 7 7.3 6.3 7 7.0 7.3 6	0.4 NONE - 1.9 GRADUAL - 1.5 GRADUAL - 1.7 GRADUAL - 1.7 GRADUAL - 1.7 GRADUAL - 1.8 NONE - 1.9 NONE - 1.2 NONE - 1.2 NONE - 1.2 NONE -	31.C-21.4 31.2 30.2-21.4 3C.7 3C.2-31.6 31.1 21.9-12.2 32.2 32.5-32.7 32.6 32.1-22.8 32.8 32.6-32.8 32.7 32.8-33.0 32.9 32.5-22.8 22.7 32.8-32.9 32.9	31.0 3623 7548 0525 30.3 3623 7542 0525 30.2 3622 7536 0524 21.5 3622 7523 0524 32.5 3622 7511 0523 32.5 3622 7511 0523 32.6 3621 7456 0522 32.6 3621 7456 0522 32.5 3621 7446 0521 32.5 3621 7446 0521	1840 1839 1839 1838 1838 1837 1837
L 1	20 4 0541 DAY	17 9.6-10.7 26 9.4-10.5 32 8.3-10.8 32 8.2- 8.2 42 8.6- 9.6 42 8.3- 8.5 192 8.4- 9.2 192 8.3- 8.4	9.9 10.5 8 9.0 10.8 8 8.2 10.8 8 5.2 9.6 8 8.3 9.6 8 8.7 5.2 6	0.2 NDNE - 0.6 GRADUAL - 0.2 GRADUAL - 0.2 GRADUAL - 0.2 GRADUAL - 0.2 GRADUAL - 0.6 NONE - 0.6 NONE -	30.3-20.7 3(.4 30.2-31.0 30.5 30.6-22.2 31.8 32.0-32.2 32.1 32.3-22.4 32.3 32.3-32.3 32.3 32.1-32.4 32.2 32.1-32.2 32.2	30.2 3546 753C C522 30.2 3546 7524 0522 30.5 3546 7517 C522 30.5 3546 7517 052 30.5 3546 7517 052 32.2 3545 7505 0521 32.2 3545 7505 C521 32.3 3545 7452 C520 22.3 3545 7452 C520	1840 1839 1839 1838 1838 1838
M ? 0- 6 N 3 0- 6 M 4 0- 15 M 4 18-33 M 5 0-15 M 5 18-33	20 4 10 Cl CAY 20 4 10 F3 DAY 20 4 1148 CAY 20 4 12 45 CAY 20 4 12 45 DAY 20 4 13 46 CAY 20 4 13 46 DAY	16 11.2-11.6 2G 11.1-12.3 25 10.6-11.5 62 12.4-15.2 62 17.1-18.6 215 13.3-15.2 215 18.5-19.5	11.7 17.3 9 11.1 11.9 18 13.7 12.4 18 18.4 12.4 18 15.8 13.3 18 19.3 13.3 18		30.1-30.6 30.3 29.9-30.3 30.1 30.3-30.5 30.3 30.7-32.2 31.6 33.1-34.5 34.4 31.5-35.4 33.6 35.4-35.6 35.5	30.0 3518 7529 C524 29.9 3516 7523 0524 30.2 3514 751P 0523 20.6 3512 7512 C523 30.6 3512 7512 C523 31.5 3510 7507 0522 31.5 3510 7507 C522	1839 1838 1838 1838 1837 1837
N 1	20 4 1753 DAY 20 4 1851 NIGHT 20 4 1948 NIGHT 20 4 1948 NIGHT 20 4 2125 NIGHT 20 4 21316 NIGHT 20 4 2316 NIGHT	21 10.7-12.2 22 11.7-11.8 29 9.5-12.5 25 9.5-10.0 49 20.5-21.0 45 18.5-20.8 235 23.5-23.5 235 23.1-23.5	11.8 11.8 11 11.3 12.2 9 10.0 12.2 9 21.0 21.0 18 19.9 21.0 18 23.5 22.5 19		32.2-32.6 32.4 32.1-32.1 32.1 31.7-22.2 32.0 32.1-33.9 32.7 35.5-35.6 35.6 35.4-35.8 35.7 35.5-35.6 35.5 35.5-25.6 35.6	32.5 3501 7557 C522 32.0 3456 7555 C522 31.7 3451 7552 C525 31.7 3451 7552 C525 35.6 3442 7548 C525 35.6 3442 7546 C525 35.4 3433 7544 C526 35.4 3433 7544 C526	1837 1839 1839 1839 1829 1829
F 1 0-6 P 2 0-6 F 3 0-6 P 4 0-15 P 4 18-24 F 5 0-15 P 5 18-33	21 4 09C6 0AY 21 4 0815 DAY	18 15.5-17.4 18 15.5-16.4 18 15.5-16.2 34 15.3-15.9 34 16.3-16.5 74 24.9-25.0 74 25. C-25.1	16.0 16.4 14 15.9 16.2 14 15.7 15.9 17 16.7 15.9 17 25.0 24.9 21	5.3 GRADUAL6 GRADUAL6 WEAK 3-10 .01 GRADUAL1 GRADUAL -	32.1-32.8 32.4 32.1-33.3 33.2 32.8-33.8 33.4 33.3-34.5 33.7 34.8-35.0 34.9 35.4-35.5 35.5 35.4-35.6 35.5	32.7 3438 7540 0528 33.0 3434 7637 0527 32.8 3429 7533 0528 33.3 3417 7623 0528 33.3 3417 7623 0527 35.4 3404 7513 0527 35.4 3404 7612 0527	1843 1843 1842 1842 1841

TABLE 2. (continued)	27		
CRUISE TOW DATE IDW LIGHT D66C5 DERTH 1965 START CONC. STA. (M) O M FST	WATEP **** TEMPERATURE IC1 ***** CERTH RANGE MEAN SURF. BDT. (*)	THERMOCLINE **** SALINITY DEGREE DEPTH 10/COT IM1 PANGE MEAN	LAT. LONG. RISE SET
A 1 0-6 12 5 20C2 NIGHT A 2 0-15 12 5 21C9 NIGHT A 2 18-24 12 5 21C9 NIGHT A 3 18-33 13 5 00C8 NIGHT A 4 0-15 13 5 00C8 NIGHT A 4 0-15 13 5 0153 NIGHT A 4 19-33 13 5 0153 NIGHT A 5 0-15 13 5 0325 NIGHT A 5 19-32 13 5 0325 NIGHT A 6 19-33 13 5 0335 NIGHT A 6 19-33 13 5 03534 CAY A 6 19-33 13 5 04866 OAY A 7 18-33 13 5 04866 OAY	19 7.8-7.8 7.8 7.8 7.8 7.8 33 7.3-7.4 7.2 7.2 7.2 7.4 7.2 37 7.2-7.2 7.2 7.2 6.6 6.7 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	NONE - 32.5-22.6 32.6 NONE - 32.4-32.6 32.5 NONE - 32.5-32.6 32.6 NONE - 31.9-32.4 32.3 NONE - 32.2-32.5 32.3 NONE - 32.2-32.5 32.3 NONE - 32.2-32.5 32.4 STPONG 35-36 32.2-32.7 32.6 WEAK 35-42 32.2-33.3 32.9 WEAK 35-42 32.0-23.3 33.2 - 33.0-33.1 33.1	32.5 4117 7048 0428 1851 32.5 4112 7047 C428 1651 32.5 4112 7047 0428 1851 32.5 4112 7047 0428 1851 31.6 4107 7046 C427 1852 31.8 4107 7044 0428 1851 32.4 4057 7044 0428 1851 32.2 4047 7042 (428 1851 32.2 4047 7042 (428 1851 33.1 4032 7040 0429 1850 33.1 4032 7040 0429 1850 33.1 4037 7037 C428 1849 33.1 4017 7037 C428 1849
P 1	34 7.1-7.7 7.5 7.7 5.0 £2 7.5-7.5 7.5 7.5 4.9 52 4.8-6.8 5.5 7.5 4.9 65 7.2-7.6 7.5 7.6 4.2 £5 6.2-6.9 6.5 7.6 4.2 72 6.6-7.6 7.4 7.6 4.1 72 6.2-6.4 6.3 7.6 4.1 72 6.2-6.4 6.3 7.6 4.1 86 6.7-7.0 6.9 7.0 3.7 86 5.6-6.6 6.4 7.0 3.7 98 6.5-6.6 6.6 6.6 6.6 6.6	GRADUAL - 30.2-31.2 30.6 GRADUAL - 31.3-31.9 31.7 WEAK 17-23 32.2-33.0 32.7 GRADUAL - 32.1-23.0 32.4 GRADUAL - 32.5-33.3 33.1 WEAK 12-15 32.6-23.3 32.9 GRADUAL - 32.5-22.8 32.6 GRADUAL - 32.5-22.8 32.6 GRADUAL - 32.5-32.7 32.6 GRADUAL - 32.5-32.7 32.6	30.1 4103 7151 C431 1856 31.3 4058 7149 0432 1855 31.7 4054 7147 C432 1855 32.1 4044 7144 C432 1855 32.1 4044 7144 C432 1855 32.1 4044 7144 C432 1855 32.6 4034 714C C433 1854 32.6 4034 714C C433 1854 32.6 4020 7135 C432 1853 32.6 4020 7135 C432 1853 32.6 4020 7135 C432 1853 32.5 4005 7129 C432 1852 32.5 4005 7129 C433 1852
C 1	21 8.0-8.8 8.7 8.8 8.0 30 8.3-8.7 8.6 8.7 7.4 25 7.5-6.4 6.2 6.4 7.4 35 7.9-7.9 7.9 8.4 7.4 26 7.3-7.9 7.7 7.9 6.4 36 6.6-7.4 7.2 7.9 6.4 51 7.6-7.8 7.7 7.8 6.4 51 6.4-1.6 6.9 7.8 6.4 59 7.4-7.5 7.4 7.5 5.1 68 7.1-7.2 7.1 7.2 4.1 68 5.7-7.0 6.5 7.2 4.1 400 6.8-7.3 7.1 7.3 8.3	MEAK 12-14 3C.9-31.8 31.3 MEAK 17-20 31.1-1.7 31.5 NONE - 32.C-32.1 32.0 NONE - 32.2-32.3 32.3 NONE - 32.3-32.4 32.4 NONE - 32.4-22.6 32.4 NONE - 32.6-22.7 32.7 NONE - 32.6-22.7 32.7 NONE - 32.6-22.7 32.6 MEAK 35-45 32.2-12.7 32.6 MEAK 28-44 32.1-32.5 32.4 MEAK 28-44 32.1-32.5 32.4 MEAK 28-44 32.2-32.4 32.3 32.4-23.8 32.5	30.9 4035 7317 0438 1901 31.4 4031 7314 6438 1901 32.1 4027 7310 0438 1901 32.1 4027 7310 0438 1901 32.3 4019 7302 6441 1904 32.3 4019 7303 0441 1904 32.7 4010 7255 0438 1859 32.7 4010 7255 0438 1859 32.6 3558 7244 6437 1858 32.1 3946 7233 0437 1856 33.1 3934 7222 6437 1856 33.1 3934 7222 6437 1856 33.1 3934 7222 6437 1856
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	TOW DEPTH (M)					***** TEMFE RANGE	RATURE MEAN	(C) SURF.	***** 80T.	THE RMO DEGREE	CL INE OEPTH (M)	**** SA RANGE	LINITY (0/00) PEAN	**** SURF.	LAT. LING.	** SUN ** RISE SET
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CRUISE C6607 STA.	T OW DE PTH ( M)	DA 1	66		LIGHT COND.	MATER DEPTH (P)	***** TEMPE RANGE			***** 80T.		DCL INE DE PTH LMI		ALINITY (0/00) PEAN	**** SURF.	LAT.		** SUN * R1SE SE	
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0 1 2 0 3 0 4 4 0 5 5 0 6 6 6 7 7 0 8 8	0- 6 0-15 0-15 18-24 0-15 18-33	20 20 20 20 20 20 20 20 20 20 20			DAY DAY DAY DAY DAY DAY CAY CAY CAY CAY CAY CAY CAY NIGHT	18 23 26 31 31 41 41 57 57 75 75 108	12 .2 -14.1 15 .7 -16.8 10 .3 -17.2 15 .1 -17.6 8 .2 -11.0 13 .7 -16.8 8 .1 -10.7 14 .9 -16.8 8 .3 -11.3 11 .1 -15.0 6 .7 - 9.7 14 .1 -15.0 8 .8 -13.4	13.1 16.5 15.6 16.5 E.7 15.9 E.4 16.1 8.8 14.2 7.6 14.7 1C.5	14.1 16.8 17.2 17.6 17.6 16.8 16.8 16.8 15.6 15.6	8.1 9.1 8.2 8.2 8.1 7.1 7.1 4.4 4.4	STRDNG STRDNG STRDNG WEAK WEAK STRONG STRONG	11-17 14-20 14-20 11-21 11-21 14-20 14-20 8-25	31.7-21. 31.4-31. 3C.6-31. 30.3-2C. 31.4-31. 30.2-21. 31.4-32. 3C.6-31. 31.5-22. 3C.5-31. 31.6-32. 31.6-32.	8 31.6 3 30.8 9 30.7 8 31.7 2 30.5 1 31.8 2 30.9 2 31.9 5 31.2 1 21.9 1 31.8	3¢.€ 30.6	3951 3948 3945 3939 3932 3932 3932 3932 3914 3914 3906 3906	73 5 5 73 5 4 73 4 3 73 4 3 73 3 3 73 3 3 73 1 9 73 1 5 73 0 3 73 0 3 72 5 C	0431 193 (42 E 152 642 8 192 (427 192 (426 192) (426 192) (426 192 0426 192 0425 192 (425 192 (425 192	7 7 16 16 15 13 16 16 16
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CRUISE TOW D6607 DEPTH STA. (M)		WATER **** TEMPE CEPTH RANGE (M)	RATURE (C) ***** MEAN SURF. 801.		**** SALINITY (O/CO) FANGE MEAN	LAT. LONG. RISE SET
	27 6 2153 NIGHT 27 5 2153 NIGHT	88 14.7-18.4 88 5.3-12.5	11.0 18.4 6.2	WEAK 7-30 WEAK 7-30	22.5-33.5 32.1 32.5-33.5 33.1	32.4 3742 7422 C43E 1924 32.4 3742 7422 C43E 1924
H 1 0- 3 H 2 0- 6 H 3 0- 6 H 4 0-15 H 5 0-15 H 5 19-33 H 6 0-15 H 6 18-33 H 7 0-15 F 7 18-33		17	19.6 21.2 15.5 20.3 21.5 15.3 18.5 2C.7 13.7 13.9 20.7 13.7 18.0 19.3 11.4 12.8 19.3 11.4 15.8 18.6 6.2 7.8 18.6 6.2 17.8 18.7 9.3	MEAK 0-11 MEAK 5-15 MEAK 5-15 GRADUAL - GRADUAL - GRADUAL - MEAK 0-30 MEAK 0-30 MEAK 11-31	31.6-21.6 31.6 30.3-31.0 30.7 31.0-21.4 21.2 31.1-31.4 31.3 31.4-21.4 31.4 31.6-31.7 31.7 31.8-32.1 32.0 22.1-32.0 32.2 32.1-32.5 32.3 32.6-22.8 32.7 32.7-33.3 33.0	21.6 3734 7532 C44: 1927 30.3 3732 7528 044: 1927 30.9 3730 7522 C441 1926 31.3 3727 7510 0441 1926 31.7 3723 745E C441 1925 31.7 3723 745E C441 1925 31.7 3723 745E 0441 1925 22.1 3718 7440 C44C 1924 32.1 3718 7440 C44C 1924 32.6 3716 7434 0439 1922 32.6 3716 7434 C435 1522
J 1 0- 6 J 2 0- 6 J 3 0- 6 J 4 0- 6 J 5 0-15 J 6 0-15 J 6 18-24 J 7 0-15 J 7 19-33	26 6 15C4 DAY	11 20.9-22.1 13 17.2-2C.6 17 18.0-2C.6 21 19.4-19.9 29 13.2-20.1 36 15.2-18.5 36 12.3-14.3 82 12.1-18.6 62 8.2-11.4	18.8 2C.6 16.0 15.0 2C.0 16.3 19.8 19.8 12.6 17.4 20.1 12.9 16.9 18.5 11.6 13.3 18.5 11.6	WEAK 0- 7	24.7-25.4 24.8 27.0-30.2 28.8 3C.1-3C.6 3C.4 31.0-31.1 31.1 31.4-31.8 31.6 31.9-22.0 31.9 31.9-32.1 32.0 31.6-21.9 31.9 32.0-32.3 32.1	24.6 3655 755E C442 1923 27.0 3655 7552 C445 1926 30.1 3654 7545 0445 1926 31.0 3653 7533 C444 1925 31.7 3652 7521 0443 1924 31.5 3650 7502 C442 1923 31.9 3650 7502 C442 1923 31.8 3648 7444 C441 1922 31.8 3648 7444 C441 1922
K 1 0- 6 K 2 0-15 K 3 0-15 K 4 0-15 K 4 18-24 K 5 0-15 K 6 0-15 K 6 0-15 K 6 19-33 K 7 0-15 K 7 18-33	26 6 0532 DAY 26 6 0437 DAW 26 6 02345 NIGHT 26 6 0218 NIGHT 25 6 2238 NIGHT 25 5 2238 NIGHT 25 5 2238 NIGHT 25 6 2105 NIGHT 25 6 21C5 NIGHT 25 6 1741 DAY 25 6 1741 DAY		18.1 2C.8 14.9 17.7 19.5 13.8 14.4 15.5 13.8 17.5 19.5 14.1 17.6 19.4 10.1 13.2 19.4 10.1 18.0 15.2 11.1	GRAOUAL - WEAK 4-14 GRADUAL - GRADUAL - WEAK 6-14	27.5-28.6 27.9 28.9-31.7 30.7 30.6-31.6 31.1 31.4-31.6 31.5 31.8-21.9 31.9 31.2-32.0 31.8 32.1-32.2 32.1 32.1-32.2 32.1 32.1-32.8 32.4 32.0-32.6 32.4 32.3-32.8 32.6	27.5 3623 7546 C446 1925 28.9 3623 7542 C446 1925 30.7 3622 7536 0445 1924 31.4 3622 7523 C445 1924 31.4 3622 7523 0445 1924 31.2 3622 7511 C44 6 1923 31.2 3622 7511 C44 6 1923 32.0 3621 7456 C442 1922 32.0 3621 7456 C442 1922 31.9 3621 7446 C442 1921 31.9 3621 7446 C442 1921
1 1 0-6 L 2 0-6 L 3 0-15 L 3 18-24 L 4 0-15 L 4 19-33 L 5 0-15 L 5 18-33	23 5 01 02 N1GHT 22 6 /3 25 N1GHT 22 5 /144 N1GHT 22 6 /1028 N1GHT 22 6 /028 N1GHT	16 18.5-18.4 38 18.5-18.7 38 15.5-16.7 38 15.3-15.4 51 14.7-17.8 51 11.7-13.9 151 16.6-19.6	18.6 18.7 18.1 16.0 16.7 15.6 15.3 16.7 15.6 16.0 17.8 12.5 12.5 17.8 12.5 17.9 18.9 7.2	GRADUAL - NONE - NONE - ONONE - GRADUAL - GRADUAL -	25.2-25.4 25.2 31.5-31.7 31.6 32.0-32.8 32.3 32.8-32.8 32.6 32.3-32.9 32.6 32.2-33.3 32.8 31.8-34.0 32.8 34.2-34.5 34.4	29.2 3546 753C 0446 1922 31.5 3546 7524 C446 1922 32.0 3546 7517 C445 1921 32.0 3546 7517 C445 1921 32.3 3545 7505 0444 1920 32.3 3545 7505 0444 1920 31.8 3545 7452 C443 1919 31.8 3545 7452 0443 1919
M 1 0-6 M 2 0-15 M 3 7-15 M 4 0-15 M 4 18-33 M 5 0-15 M 5 18-33	23 6 17(6 0AY 23 5 1805 DAY 23 6 1853 DUSK 23 5 2003 NIGHT 23 6 2003 NIGHT 23 5 2110 NIGHT 23 5 2110 NIGHT	15 19.6-15.7 21 19.8-22.1 27 23.7-24.9 68 25.2-26.2 68 23.9-25.1 269 25.6-26.6 269 25.6-25.4	20.3 15.8 22.1 24.6 23.7 24.5 25.8 26.2 23.3 24.8 26.2 23.3 26.5 26.6 17.3		30.1-30.6 30.3 31.5-34.4 32.1 35.2-36.4 35.8 36.6-36.8 36.7 36.7-36.9 36.8 36.6-36.8 36.7 36.6-36.7 36.7	30.6 3518 7525 C44E 1920 31.5 3516 7523 0448 1920 35.1 3514 751E C447 1919 36.6 3512 7512 C447 1919 36.6 3512 7512 C447 1919 36.5 3510 7507 0446 1918 36.5 3510 7507 0446 1918
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CRUISE D661 C STA.	T 1 W OE PTH (M)		STA	T CONC.	NA TER CEPT H ( 1-1	***** TEMPE RANGE				THERM OEGREE	OCL INE DEPTH IM)		AL INITY (0/00) MEAN	**** SUR F •	LAT.		** SUN ** R IS E S ET
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E 1 2 3 4 5 5 5 6 6 7 7 8 8	0- 6 0- 6 0- 6 0- 6 0-15 18-24 0-15 18-33 0-15 18-33	A F F F F F F F F F F F F F F F F F F F	1 /25 1 /35 3 070 1 101 3 101 3 120 3 120 4 140 1 140	3	14 16 18 24 36 36 43 64 64 134	18.7-20.0 19.3-2C.6 20.6-21.8 20.6-21.9 20.7-22.2 9.7-15.4 22.2-22.7 7.9-18.7 21.7-22.7 6.9-16.0 22.8-23.3 13.6-21.5	21.6 21.8	22.1 22.1 22.7 22.7 22.7 22.7 23.3		STRONG STRONG STRONG STRONG STRONG STRONG STRONG WEAK	4-13 6-15 14-21 14-21 16-25 16-25 16-30 16-30	3C. \$\infty\$ 3C. \$\frac{3}{3}\$. \$0-31.\$\\ 31.\$0-21.\$\\ 31.\$3-21.\$\\ 30.\$6-30.\$\\ 30.\$6-30.\$\\ 30.\$6-31.\$\\ 31.\$2-31.\$\\ 31.\$2-31.\$\\ 31.\$2-31.\$\\ 31.\$9-32.\$\\	31.1 31.0 31.3 31.3 31.0 6 21.3 7 30.7 8 30.9 9 30.9	30.9 30.5 30.7 30.7 30.8 30.8		74 25 74 20 74 05 73 59 73 55 73 45 73 49 73 33 73 33 73 18	C 504 19 C3 C 504 19 C3 0 503 1901 C 504 19 C0 C 502 18 59 C 502 18 58 C 502 18 58 C 501 18 56 C 501 18 56 C 501 18 55
F 1 F 2 F 3 F 4 F 5 F 6 F 6 F 7	0- 6 0- 6 0- 15 0- 15 0- 15 18- 24 0- 15 18- 33 0- 15 19- 33	10 8 10 8 10 8 10 8 10 8 09 8 9 8 9 8	04 0 3 03 0 3 014 1 23 5 1 27 0 3 27 0	4 DAWN 0 NIGHT 7 NIGHT 16 NIGHT 2 NIGHT 2 NIGHT 6 NIGHT 6 NIGHT 6 NIGHT 8 NIGHT 8 NIGHT	16 21 25 21 34 34 54 54 74	17.4-18.2 17.2-18.5 13.5-18.7 10.1-21.7 14.8-22.4 8.8-11.5 19.9-22.0 6.9-13.0 20.8-22.6 6.5-16.8	11.8 16.0 15.1 20.7 9.5 22.0 7.8 22.2	18.2 18.5 18.7 21.7 22.4 23.0 23.0 22.6 22.6		NONE GRADUAL GRADUAL STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG	9-19 9-19 12-21 12-21 13-26	31.1-28.6 30.5-30.7 30.5-21.0 30.9-31.1 30.9-30.9 31.1-21.2 31.1-31.2 31.2-21.9 31.0-31.6 30.0-21.9	30.6 30.7 31.0 30.9 31.2 31.1 21.6 31.3	38.7 30.4 30.6 30.9 30.8 31.0 31.0 31.0	3 646 3 843 3 64 0 3 835 3 829 3 829 3 821 3 821 3 813 3 813	74 58 74 52 74 41 74 30 74 30 74 13 74 13 73 57	C 508 1901 0509 1901 C 508 1900 C 508 1900 0506 1900 C 506 1900 0 505 1859 C 505 1857
C 1 G 2 G 3 G 3 C 4 G 4 G 5	0+6 0-15 18-24 0-15 18-24 0-15 18-33	21 8 21 8 21 8 21 8 21 8	064 1 075 1 075 1 093 1 093	0 CAY 2 DAY 2 DAY 0 DAY 0 DAY 5 DAY	11 13 18 18 28 28 49	19.5-21.C 14.3-21.4 12.2-22.6 11.3-11.9 15.8-23.6 9.7-12.2 16.3-24.2 5.5-11.7	21.2	21.0 21.4 22.6 22.6 23.6 23.6 24.2 24.2	16.9 13.2 11.3 11.3 9.7 9.7 5.8 5.8	S TRONG STRONG S TRONG S TRONG S TRONG S TRONG S TRONG S TRONG	8-18 13-23	31.1-31.4 31.2-21.2 31.0-31.3 31.5-31.5 30.7-31.0 31.1-31.6 30.1-30.6	31.2 31.1 31.5 30.9 31.3 30.4	21.2 31.3 31.3 30.9 30.9	3807 36C4 3801 3801 3756 3756 3750 3750	75 04 74 5 9 74 5 9 74 4 8 74 4 8 74 3 8	0 f 2 l 1 E 4 7 C 5 2 0 1 8 4 6 C 5 2 C 1 8 4 6 C 5 2 C 1 8 4 6 C 5 1 5 1 8 4 4 C 5 1 5 1 8 4 4 C 5 1 5 1 8 4 4 C 5 1 5 1 8 4 4

CRUISE D661C STA.				CIGHT COND.		*** * * TEM PE RANGE			***** BOT.		DCLINE DEPTH (M1	***	LIN1TY (0/00)	**** SURF.	LAT.	ITIOA LONG.	** SUN *
G 6 G 6	0-15 18-33	21 8 21 8			91 91	19.6-24.6 7.1-16.4	23.0 11.0		8.8	S TRONG S TRONG		30.8-31.1 31.4-31.8		30.9 30.9			C 51 6 1840 0 51 8 1840
H 6 F 6 H 7	0- 3 0-15 0- 6 0-15 0-15 18-24 0-15 18-33 0-15 18-33	22 8 22 8 22 8 22 8 22 8 22 8 21 8 21 8	10 05 1 0 55 03 05 01 39 01 39 21 43 21 43 20 30	DAY	10 18 24 26 40 40 86 86 131	21.1-24.0 14.5-24.9 23.4-25.5 12.6-24.5 18.8-25.4 9.7-14.8 20.7-25.5 6.9-17.2 22.0-25.5 6.0-18.5	22.5 19.0 25.0 21.6 23.7 11.7 24.1 10.6 24.4 10.3	24.0 24.9 25.5 24.5 25.4 25.4 25.5 25.5 25.5	19.1 14.5 13.4 9.8 8.4 8.4 9.3 9.3 10.5	STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG	2- 7 5-12 10-17 11-22 11-22 8-30 8-30 10-30	30.9-30.9 25.6-30.9 29.9-35.6 3C.5-31.1 30.5-21.0 31.0-31.2 3C.7-32.0 31.2-31.9 30.9-31.6 3C.6-31.8	3C.4 32.3 30.6 3C.7 31.1 3C.9 31.4 31.2	30.8 29.8 35.6 30.6 30.8 30.7 30.7 30.7	3 732 3 730 3 727 3 723 3 723 3 718 3 718 3 716	75 2 8 15 2 2 75 1 0 74 5 E 74 5 B 74 4 0 74 4 C	0524 1846 0524 1846 0523 1849 0523 1849 0522 1849 0520 1844 0519 1842 0515 1843
J 7	0- 6 0- 6 0- 6 0- 15 0-15 18-33 0-15 18-33	22 8 22 8 22 8 22 8 22 8 23 8 23 8 23 8	15 29 14 55 21 57 23 47 03 35 03 25 06 17	DAY CAY NIGHT NIGHT NIGHT NIGHT DAY	15 10 16 17 26 35 35 102	22.1-25.0 15.4-22.8 17.2-22.8 24.2-26.0 15.7-26.1 18.5-25.8 8.2-14.5 22.9-25.8 8.2-22.2	23.7 18.6 19.8 25.8 21.2 23.6 9.6 25.2 14.4	25.0 22.8 22.8 26.0 26.1 25.7 25.7 25.8 25.8	19.4 14.6 14.5 13.0 10.3 8.3 10.8	STRONG STRONG STRONG STRONG GRADUAL STRONG STRONG STRONG	0 - 5 0 - 7 5 - 13 - 6 - 24 6 - 24 11 - 36	27.3-28.7 28.3-30.8 28.8-30.3 30.6-20.7 30.4-31.2 30.3-30.6 30.7-31.4 30.7-31.5 31.7-52.3	29.7 29.6 30.6 30.7 30.5 31.0 31.1			75 5 2 75 4 5 75 3 3 75 2 1 75 0 2 75 0 2 74 4 4	0522 1847 C525 1846 C524 1846 C524 1846 0523 1847 C523 1847 C522 1846 C522 1846
K 5 K 5 K 6 K 6 K 7	0- 6 0- 6 0-15 0-15 18-24 0-15 18-24 0-15 18-33 0-15 18-33	24 8 24 8 24 8 23 8 23 8 23 8 23 8 23 8 23 8 23 8 23	20 56 19 54 18 57 18 57 17 18 17 18 13 29 13 29	DAY DAY DAY	13 18 25 27 27 30 3C 41 41 668 668	23.3-23.4 22.6-23.5 15.0-24.4 14.5-25.5 10.8-12.9 19.4-26.4 10.2-15.4 14.4-26.7 8.1-13.1 18.8-26.1 7.9-16.3	23.4 23.3 22.1 22.0 11.7 22.9 12.3 22.8 10.2 24.0 11.2	23.4 23.5 24.4 25.5 25.5 26.4 26.4 26.7 26.7 26.1	22.8 17.8 14.8 10.5 10.5 9.6 7.7 7.7 10.8 10.8	NONE STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG STRONG	7-15 8-18 8-18 7-23 7-23 7-15 7-15 10-34	30.3-20.4 30.9-30.9 30.7-31.1 30.8-31.6 31.2-31.3 31.4-31.7 30.2-31.2 31.0-33.2 31.7-32.5	30.9 30.8 3(.9 31.3 31.3 31.6 30.8 37.0 30.7	31.1 31.1 30.9 30.9	3622 3622 3622 3622 3621 3621 3621	75 4 2 75 3 6 75 2 3 75 2 3 75 1 1 75 1 1 74 5 8 74 5 E	0528 1841 C528 1841 C527 1844 C526 1843 C526 1844 C525 1844 C524 1841 C524 1841 C524 1844 C523 1846
l 4 l 4 l 5	0- 6 0- 6 0-15 18-24 0-15 18-33 0-15 18-33	25 8 25 8 25 8 25 8 25 8 25 8 25 8 25 8	72 11 04 45 04 45	NIGHT NIGHT NIGHT NIGHT DAY DAY DAY	13 16 23 33 41 41 214 214	23.8-23.8 23.7-24.3 16.5-24.6 14.7-16.4 24.5-25.8 15.6-24.1 19.1-25.3 8.1-16.1	23.8 24.2 22.2 15.6 25.6 18.1 24.3 11.3	23.8 24.2 24.6 24.6 25.8 25.8 25.3 25.3	23.6 20.2 16.4 16.4 16.0 16.0 8.9		7-14 7-14 19-25	31.0-31.1 30.9-21.3 31.3-31.9 32.2-22.7 31.9-33.6 31.2-34.5 21.0-21.5 31.3-33.8	31.1 31.5 32.5 32.4 33.3 31.4	31.1 30.9 31.5 31.5 31.8 31.8 31.4	3546 3546 3546 3546 3545 3545 3545	75 2 4 75 1 7 75 1 7 75 0 5 75 0 5 74 5 2	0528 1839 0528 1839 0527 1836 0527 1836 0526 1837 0526 1836 0525 1836
м 5		25 8 25 8 25 8 25 8 25 8 25 8 25 8	1212 1307 1400 1502 1502 1608	DAY DAY DAY DAY CAY DA Y	15 17 25 54 54 261 381	25.4-25.4 24.9-25.2 18.9-25.6 24.4-27.6 22.3-23.4 27.2-27.7 23.1-26.8	25.1 22.0	25.4 25.0 25.6 27.6 27.6 27.6	25.4 23.0 19.6 22.2 22.2 12.1 12.1	STRONG	4-10 7-17 7-17 41-5	31.4-31.6 32.1-32.6 32.8-33.5 34.6-35.1 34.8-34.9 34.5-34.9 34.8-35.2	32.3 33.3 34.9 34.8 34.6	32.6 22.9	3518 3516 3514 3512 3512 3510 3510	75 1 8 75 1 2 75 1 2 75 0 7	C525 1836 0525 1836 C528 1836 0528 1836 0528 1836 C527 1837
N 4 N 4 N 5	0-15 0-15 0-15 18-24 0-15 18-33 0-15 18-33	25 8 25 8 25 8 25 8 26 8 26 8 26 8	2142 2242 2242 4009 6009	NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT NIGHT	22 23 27 27 48 48 206 206	27. 1-27. 2 23. 7-26. 4 27. 5-27. 5 25. 5-27. 0 28. C-26. C 22. 9-27. 5 28. 3-28. 8 26. C-28. 5	27.2 25.6 27.5 26.3 28.0 25.2 28.6 27.4	27.2 26.4 27.5 27.5 28.0 28.0 28.3 28.3	25.2 21.6 21.6 13.3	GRADUAL GR∌DUAL HEAK	6-13 - 17-41 17-41	3 4.6-34.8 3 4.4-35.3 3 4.5-35.1 3 5.0-35.2 3 4.1-34.5 3 4.8-25.3 3 4.1-35.2 3 5.1-35.4	34.8 34.6 35.1 34.2 35.0 34.7	34.6 34.4 34.5 34.5 34.1 34.1 34.2	3501 3456 3451 3451 3442 3442 3433 3433	75 5 5 75 5 2 75 5 2 75 4 8 75 4 8 75 4 8	C527 163 C527 183 C530 1839 C530 1839 C531 1836 C531 1836 C531 1836
F 1 P 2 P 3 P 4 P 5 F 5	0- 6 0- 6 0- 6 0-15 0-15 18-33	26 8 26 8 26 8 26 8 26 8 26 8	07.53	DAY DAY DAY DAY CAY	12 15 13 28 187	26.6-26.6 26.5-26.5 26.1-26.2 25.5-27.8 28.4-28.8 26.7-26.7	26.5 26.2 27.5 28.6			GRAQUAL		34.3-34.6 34.4-34.7 34.7-34.9 34.3-24.9 33.9-35.1 35.1-35.4	34.6 34.8 34.5 34.2	34.4 34.7 34.3 33.8		75 3 7 76 3 6 75 2 3 76 1 3	0535 1842 0534 1841 0535 1840 0535 1840 0534 1839 0534 1839

	TOW 05PT4 (M)		66		LIGHT COND.	WATER DE PTH (M)	**** TEM PE RANGE			8OT .		OCLINE DEPTH 1#1		NITY **** /001 FEAN SUI	LAT.		** SUN ** RISE SET
A 1 A 2 A ?	0- 3 0-15 19-24	13 13	9	0927 1033 1033	DAY CAY DAY	19 30 30	17.1-17.2 16.C-17.2 14.5-15.8	16.7 15.3	17.2 17.2	13.6 13.6	NONE GRADUAL GRADUAL	<u>-</u>	31.4-21.4 2 31.4-31.5 3 31.5-31.5 3	1.4 31. 1.5 31.	4 4112 4 4112	73 4 7 70 4 7	C521 1757 0521 1757 C521 1757
A 3 A 3 A 4	0-15 19-24 0-15	13 13 13	9	1143 1143 1315	DA Y CAY DA Y	40 40 45	15.6-16.2 13.0-14.6 19.1-15.8	17.3 13.8 19.6	1 E • 2 1 8 • 2 1 9 • 8		GR # CUAL GR ADUAL STRONG	- 19-24	31.2-31.7 3 31.3-31.7 3 31.9-22.0 3	1.5 31.	5 4107	7346	C 12 1 1757 052 1 1757 C 12 1 1756
A 4 A 5	18-33 0-15	13	9	1315 1716	DAY	49 60	11.5-18.6 17.6-17.8	14.2 17.7	19.8	9.6 8.9	S TRONG S TRONG	20 - 30	31.5-31.9 3 31.6-31.8 3	1.7 31.	8 4647		C 521 1756
A 5 A 6 A 6	19-33 0~15 19-33	13 13 13	9		DAY NIGHT NIGHT	60 68 €8	11.2-17.6 17.4-17.6 11.5-17.8	14.6 17.5 14.8	17.8 17.4 17.4	8.9 7.8 7.8	STRD NG STRONG STRONG	20-41	31.4-31.8 3 31.6-32.1 3 31.7-32.2 3	2.0 32.	C 4 C32	7340	0521 1756 0521 1756 0521 1756
A 7	0-12	14	9	40.04	NIGHT NIGHT	112 112	19.5-18.8	18.8	18.8	8.3	STRONG STRONG	19-40	32.5-32.7 3 32.1-32.4 3	2.5 32	6 4017	7337	0521 1754 0521 1754
P 1	0- 6 0-15	14 14	9		NIGHT NIGHT	26 34	18.2-18.2 18.3-18.6	18.2	18.2 18.6	17.5 13.2	NONE GR ADU AL	-	31.0-21.0 3 31.4-21.6 3				C526 1759 C526 1759
8 3	0-15	16	9		NIGHT	50	17.C-15.6 10.7-15.1	15.1	19.6	10.0	S TRONG S TRONG		32.4-32.5 3			7147	0528 1755 052E 1755
8 3 P 4	18-33 0-15	16 14	9	1643	NI GHT DA Y	50 63	20.5-21.0	12.3 20.9	21.0	8.5	STRONG		32.0-32.2 3				C52 £ 1759
P 4	19-33	14	9	1643	CAY	63	10.4-20.9	15.0	21.0	8.5	STRONG		31.E-32.4 3				0526 1759
8 5	0-15	14	9	1259	DAY	72	21.7-21.7	21.7 19.8	21.7	8.3	STRONG STRONG		32.3-32.4 3 32.2-32.4 3			71 4 C	0526 1759 0526 1759
8 6	18-33 0-15	14	9	0964	DAY	7 2 82	18.9-18.5	18.9	18.9	9.3		18-35	31.9-32.1 3				C525 1758
P 6	18-33	14	9	0904	DAY	82	10.5-18.5	15.0	18.9	9.3	ME A K	18-35	32.1-32.3 3			7135	0525 1758
8 7	0-15		9		NIGHT	94	15.5-18.7	18.0	18.6	9.9		10-35	31.6-22.3 3			71 29	0525 1757
P 7	19-33	14	9	03-7	NIGHT	94	8.2-14.C	10.5	18.6	9.9	WEAK	10-35	31.7-32.2 3	1.9 32	3 4005	11.25	(52: 175)
6 1	n- s	17	9	0750	CAY	17	19.8-19.9	19.9	19.8	19.9	NONE	-	31.2-31.5 3	1.4 31			C 53 5 1800
C 2	0-15	17	9	05 58	ŊΛY	27	19.3-15.5		19.9	18.7	NDNE	-	31.0-31.6 3			7314	0535 1800
0.3		17	9	06 07 06 (7	DAY	34 34	19.1-19.6 18.6-19.0	15.4 18.9	1°.6 19.6		GRADUAL GRADUAL	_	31.3-31.5 3 31.2-31.4 3		4 4027		0535 1800 0535 1800
C 3	18-24 0-15	17	9	1540	CAY	41	20.7-21.2	20.9	21.2	9.0	STRONG		31.5-31.8 3			7303	0538 1803
Č 4		17	ģ.	1540	DAY	41	9.2-20.4	13.0	21.2	9.0	STRONG		31.4-31.8 3				0 538 1803
C 5	0-15	1.7	9	1735	DUSK	48	20.2-26.6	2(.5	2C.6	6.4	5 TRDNG	20-29	32.0-32.6 3			7255	0534 1759
C 5	19-33	1.7	9	1735		4.8	6.8-20.2	12.3	20.6	6.4	STRONG		32.0-32.7 3			7255	0534 1759
6.6	0-15 18-33	17	9		NIGHT NIGHT	57 57	20.2~2C.8 7.8-19.4	20.4 12.7	20.8	6.2	S T RONG S TRDNG		32.0-32.1 3 31.2-31.9 3				C 532 1758 O 533 1758
C 6	0-15	17	9		NIGHT	74	19.9-20.1	20.0	20.1	7.9	STRONG		31.7-21.9 2				C 53 2 1 7 56
ć 7	18-33	17	ý		NIGHT	74	8.5-17.4	12.1	20.1	7.9	STRONG		31.5-31.9 3			7233	0532 1756
C R	0-15	17	9	1349	NIGHT	315	20.8-20.8	20.8	20.8	10.9	STRONG		33.0-33.1 3				0532 1756
C B	18-33	17	9	2349	NIGHT	315	19.4-2(.8	20.5	2 C. 8	10.9	5 TRONG	32-40	32.5-33.1 3	3.0 33	1 3934	7222	C 532 1756
D 1	n- 6	18	9	1413	DAY	16	21.0-21.1	21.0	21.1	20.7	NDNE	_	30.4-20.5 3	C.5 3C	4 3551	74 0 4	C 543 18C5
τ 2	0- 6	18	9	1321	DAY	21	20.1-2C.6	2C.3	20.6	19.7	ND NE	-	30.1-30.4 3		0 3948	7359	0539 1801
D 3		19	9	12.26	DAY	23	20.0-20.3	20.2	20.3	16.3		22-2£	30.5-20.9 3			7354	0535 1801
C 4		18	9	1059	DAY	3 C	19.5-20.2	19.9	20.2	14.2	STRONG		30.6-30.8 3				C 536 18CO
D 4	18-24 0-15	18	9	1059 0943	CAY DAY	30 35	14.6-17.2 13.9-20.3	15.5	20.2	14.2	STRONG STRONG		3 C. 6 - 3 O. 6 3 3 O. 1 - 3 C. 8 3		7 3 5 3 2	73 4 3	0538 1800 C537 1759
C 5	18-33	18	9	0943	DAY	35	9.7-11.6	10.0	20.3	9.7	STRONG		30.1-30.9 3			7333	0537 1759
D 6	0-15	18	ģ	0743	DAY	54	14 .4 -20.9	19.6	20.9	7.3	STRONG		30.5-21.7 3				€53 € 1758
C 6	18-33	18	9	11743	DAY	54	7.5-11.6	€.4	2 C. 9	7.3	STRDNG		30.7-31.2 3			73 1 9	C53 ( 1758
D 7		18		4524	DAWN	71	19.9-20.0	20.0	20.0	5.9	STRDING		32. C-32. L 3			73 03	0539 1801
D 7 C 8	18-33	16	9	0524	DAFN	71	11.7-19.8	16.6	20.0	5.9 10.5	STRONG STRONG		31.3-32.1 2 32.1-33.1 3			73 0 3 72 5 0	C 53 S 18C1 C 53 4 1756
D 8	0-15 19-33	18	9		NIGHT	118 118	20.2-21.2	2(.8 18.9	20.2	10.5	STRONG		31.9-23.0 2				C534 1756
5 5	., ,,		′	,.	11 0111	1.0		10.7	2002	,	31.2.40	,			_ 5.50		

CRUISE TOW C6612 DEPTH STA. (M)	1965 S	TO LIGHT FART COND.	WATER CEPTH (F)	***** TEMPE RANCE	RATURE ( MEAN SUR				**** SURF.	POSITION LAT. LONG.	* * SUN ** R IS E SET
A 2	15 10 15 10	03 02 NIGHT 02 09 NIGHT 02 09 NIGHT 01 09 NIGHT 01 109 NIGHT 01 109 NIGHT 06 15 DAY 07 143 CAY 07 143 CAY 07 143 DAY 09 12 DAY 09 12 DAY 11 26 OAY 11 26 CAY	17 30 30 39 39 49 49 59 70 70 112	14.3-14.3 14.0-14.3 13.2-13.5 14.1-14.4 11.C-13.5 14.2-14.3 11.8-14.2 13.8-14.2 13.7-12.9 11.8-13.7 14.2-14.4 13.4-14.3	14.2 14 13.6 14	.3 12.9 .3 12.9 .4 11.0 .4 11.0 .3 10.1 .3 10.1 .2 9.6 .2 9.6 .9 8.1 .9 8.1	NONE - NONE - NONE - WEAK 21-26 STRONG 30-35 STRONG 30-35 MEAK 33-44 WEAK 33-44 WEAK 28-54 MEAK 32-50 MEAK 32-50	31.1-31.1 31.1 31.2-21.3 31.2 31.3-31.5 31.4 31.1-31.4 31.2 31.6-31.3 31.2 31.2-21.3 21.2 31.2-21.3 31.2 31.1-31.3 31.2 31.1-31.3 31.2 31.1-31.4 31.3 31.1-31.4 31.3	31.0 31.2 31.2 31.1 31.1 31.1 31.1 31.1 31.2 31.2	4117 7048 4112 7047 4112 7047 4107 7046 4107 7046 4057 7044 4057 7044 4047 7042 4047 7042 4047 7042 4047 7042 4047 7042 4047 7047 4047 7047 4047 7047	C554 1703 C554 1703 C554 1703 C554 1703 C554 1703 C554 1703 C554 1703 C554 1703 C554 1704 C554 1704 C554 1704
8 2	14 10 14 10	1830 NIGHT 1937 NIGHT 1937 NIGHT 1934 NIGHT 2034 NIGHT 1306 DAY 1306 DAY 1128 DAY 0750 DAY 0610 DAY 0610 DAY	13 35 35 45 45 60 71 71 81 81 90	14. C-14. 2 13.5-15. 1 12.7-13.4 15.7-16.1 12.9-15.9 15.4-15.6 13.8-15.5 14.9-15.2 12.9-14.9 15.1-15.2 14.6-15.2 14.7-14.9 11.7-15. C	14.1	.1 12.7 .1 12.7 .7 9.8 .7 9.8 .6 8.0 .6 8.0 .2 7.4 .2 7.4 .2 9.1 .7 11.1	NONE GRADUAL — GRADUAL — MEAK 25-39 MEAK 25-39 STRONG 29-42 STRONG 29-42 STRONG 26-42 STRONG 26-42 STRONG 33-46 STRONG 33-46 MEAK 25-47	30.7-30.8 30.8 30.9-31.3 31.1 31.3-21.3 21.3 31.3 31.3 31.5 31.4 31.4-31.6 21.5 30.7-31.0 30.9 30.5-21.6 31.3 30.7-21.0 30.8 31.0-31.5 31.2 31.5-31.7 31.6-31.8 31.7 31.7-31.9 31.8	30.8 30.9 30.9 31.4 21.4 30.7 30.7 30.7 31.5 31.6 21.6	4103 71 51 4058 71 49 4058 71 49 4054 71 47 4054 71 47 4044 71 44 4034 71 40 4034 71 40 4020 71 35 4005 71 29 4005 71 29	(557 1708 0557 1709 C557 1709 C557 1709 C557 1709 C557 1709 C557 1709 C557 1709 C557 1709 C557 1708 C555 1708 C555 1708 C555 1708 C555 1709
C 3	13 10 10 13 10 10 13 10 10 13 10 10 13 10 10 13 10 10 13 10 10 10 10 10	0821 CAY 0912 DAY 1007 DAY 11033 DAY 1133 DAY 1455 DAY 1455 DAY 14714 DUSK 1714 DUSK 2047 NIGHT 2259 NIGHT	19 25 31 38 38 41 41 55 73 73 492 482	14.4-15.4 15.7-15.9 16.2-16.4 16.1-16.2 15.7-16.0 9.7-15.6 15.3-15.9 10.6-15.3 15.6-15.9 10.7-15.7 15.7-15.9 13.2-15.6 15.7-15.7	15.0 15 15.8 15 16.3 16 16.2 16 15.8 16 13.6 16 15.6 15 14.6 15 15.8 15 15.8 15 15.8 15 15.8 15 15.6 15	.9 11.9 .3 10.5 .3 10.5 .0 9.1 .0 9.1 .9 7.6 .9 8.8 .9 8.8 .9 8.7 .9 8.7	NDNE   19-23	30.6-30.9 30.9 30.9-31.0 31.0 31.0-31.2 31.1 31.0-21.3 31.2 30.9-31.0 30.9 31.0-21.6 21.4 31.2-31.4 31.3 31.2-21.5 31.4 31.4-31.6 31.5 31.6-31.6 31.6 21.9-22.0 31.9 32.2-32.3 32.2 32.1-32.3 32.2	20.8 30.8 31.1 21.1 30.9 30.9 31.2 31.2 31.6 31.6 32.0 32.2	4(35 7317 4031 7314 4027 7310 4027 7310 4019 7303 4(19 73 C3 4010 7255 4010 7255 4010 7255 3958 7244 3946 7233 3946 7233 3934 7222	Cé02 1716 Cé02 1716 0601 1717 Cé01 1717 0604 1720 Cé04 1720 0600 1716 0600 1716 C555 1715 C558 1714 C558 1714 C558 1714 C555 1713
0 4 18-24 D 5 0-15 C 5 18-24 D 6 0-15 D 6 18-33 D 7 0-15 C 7 18-33 D 8 0-15	6 10 6 10 6 10 12 10 6 12 10 1	0124 NIGHT 0213 NIGHT 0318 NIGHT 0318 NIGHT 2316 NIGHT 2214 NIGHT 2224 NIGHT 1861 NIGHT 1861 NIGHT 1861 NIGHT 1662 DAY 1213 DAY	18 23 24 27 27 36 36 54 72 72 110	17. C-17. 1 16.8-17.0 16.3-16.4	17.3 17 17.0 17 16.4 16 15.9 16 16.6 16 16.1 16 16.4 16 10.8 16 10.8 16 14.0 16 14.0 16	.1 17.0 .0 16.8 .4 15.4 .4 15.4 .6 11.0 .6 11.0 .4 7.4 .6 7.9 .6 7.9	NJNE - NONE - NONE - NONE - NONE - WEAK 23-37 STRONG 19-24 STRONG 19-24 STRONG 20-35 STRONG 20-35 STRONG 30-35 WEAK 35-56	3C.4-2C.5 3C.5 30.5-30.7 30.6 3C.6-3C.9 3C.8 30.8-31.2 31.0 31.0-31.3 31.2 31.2-21.2 21.2 31.2-21.6 31.7 31.5-31.9 31.7 31.5-31.9 31.7 31.5-31.9 31.7 31.6-31.8 31.7 31.9-32.3 32.0	30.6 30.8	3 951 74 0 4 3 948 73 5 9 3 945 73 5 4 3 939 73 4 2 3 939 73 4 3 3 932 73 3 3 3 932 73 3 3 3 923 73 1 9 3 923 73 1 9 3 924 73 0 3 3 914 73 0 3 3 914 73 0 3 3 916 72 5 0 3 906 72 5 0	C601 1735 0557 1731 0556 1733 C602 1721 C602 1721 C601 1720 0601 1720 0659 1719 C559 1719 060 2 1722 C602 1722 C607 1717 C6557 1717
E 5 0-15 E 5 18-24 E 6 0-15 E 6 18-33 E 7 0-15 E 7 18-33 E 8 0-15	5 10 6 5 10 1 11 10 6 11 10 6 11 10 6 12 10 6 12 10 6 12 10 6 12 10 6	0 5 C1 DAY 14 15 DAY 13 23 DAY 20 24 NIGHT 22 10 NIGHT 22 10 NIGHT 01 50 NIGHT 01 50 NIGHT 03 52 NIGHT 03 52 NIGHT 03 52 NIGHT 08 C3 DAY	16 17 22 29 35 35 43 43 65 65 39		17.7 13. 17.4 17	.7 17.6 .4 16.9 .2 13.0 .6 9.0 .6 9.0 .2 7.9 .2 7.9 .2 6.2 .2 6.2 .6 10.9		3C.3-2C.6 3C.4 3O.6-3O.6 3O.6 3C.6-3C.9 3C.8 3C.8-21.3 31.0 31.2-31.4 31.3 31.4-21.4 21.4 31.2-21.5 3I.4 3C.5-31.9 31.4 3C.1-32.3 32.2 31.7-32.3 32.1 32.3-22.5 27.4 32.3-32.8 32.5	30.6 30.8 30.9 31.2 21.2 31.5 31.5 32.3 32.3	3 859 73 5 9 3 854 73 4 9 3 854 73 4 9 3 845 73 3 2 3 845 73 3 3 3 836 73 1 8	0558 1735 0557 1734 0607 1725 0601 1724 0601 1722 0601 1722 0601 1722 0600 1721
F 1 0-6 F 2 0-6 F 3 0-15 F 4 0-15 F 5 0-15 F 5 18-24 F 6 0-15 F 6 18-33 F 7 0-15 F 7 18-33	5 10 6 5 10 6 5 10 6 4 10 6 4 10 6 4 10 6 4 10 6	0772 DAY 1820 OAY 1922 CAY 1922 CAY 1921 NIGHT 2151 NIGHT 2151 NIGHT 1953 NIGHT 1953 NIGHT 1955 DAY 1552 DAY	16 18 27 22 35 35 54 54 91	18. (-16. 0 18.1-18.1 18.4-18.6 17.7-16. C 17.4-17.9 14.9-17.0 16.4-17.3 7.5-14.4 17.6-18.2 10.6-16.8	18.0 18 18.1 16 18.6 18 17.8 16 17.7 17 16.1 17 9.9 17 18.1 16 14.3 18	.1 18.3 .6 17.8 .0 17.7 .9 14.2 .9 14.2 .3 6.8 .3 6.8	NONE - NONE - NONE - NONE - WEAK 18-24 MEAK 18-24 STRONG 15-23 STRONG 15-23 WEAK 14-42 MEAK 14-42	29.2-29.6 25.5 29.8-39.9 35.5 30.7-21.0 30.9 30.8-30.9 30.8 30.9-30.9 30.9 30.5-31.2 31.1 30.9-30.9 30.9 31.6-21.2 21.0 31.6-31.9 31.8 31.4-21.7 31.5	29.7 30.6 30.9 30.7 30.7 30.9 30.9 31.5	3846 7502 3843 7458 3840 7452 3835 7441 3829 7430 3829 7430 3821 7413 3821 7413 3821 7413 3813 7357	0:55 1737 0:55 1737 0:55 1736 0:58 1737 0:56 1737 0:56 1737 0:55 1736 0:55 1736 0:55 1736 0:55 1735
C 1 0-6 G 2 0-6 G 3 0-15 G 4 0-15 G 5 0-15 G 5 19-33	3 10 2 3 10 4 4 10 4 4 10 6	00 43 NIGHT 23 48 NIGHT 22 31 NIGHT 06 27 DAY 08 16 DAY 09 16 CAY	11 16 22 31 51	19.0-19.0 19.2-19.2 18.2-16.3 19.1-18.2 17.4-18.0 10.9-16.9	19.0 150 19.2 19 18.3 18. 18.2 18. 17.8 18. 12.9 18.	.2 19.3 .2 18.3 .2 15.8 .0 9.4		3 (.7-3 (.9 3 (.8 3 (.7 3 (.8 3 (.7 3 (.8 3 (.7 3 (.9	30.7 31.0 31.0 31.0	3807 7509 38C4 7504 3801 7455 3756 7448 3150 7436 3750 7438	0555 1740 C557 1741 0557 1741 0557 1738 C557 1738 0557 1738

CPULSE D6612 STA.	T D W 0E PTH ( M)			LIGHT CONO.	WATER OEPTH [M]	***** TEM FE RANGE	RATURE E MEAN SUR			THERMO DEGREE			LINITY 10/00) PEAN	**** SURF.	L AT .		** SUN ** R 1S E SET	
6 6 6 6	7-15 19-32	4 10 4 10	1209 12 <b>0</b> 9	DAY	85 85	19.1-15.4 15.9-19.5	15.2 15 18.7 19			S TRONG S TRONG		31.5-31.9 31.8-22.3		31 .4 21.4			0556 1737 0556 1737	
H 1 H 2 F 3 H 4 F 5 H 6 F 6 H 7	0- 6 0- 6 0-15 0-15 0-15 13-33 0-15 19-33 0-15 13-33	3 10 3 10 3 10 3 10 3 10 3 10 3 10 3 10	48 53 11 14 49 50 49 50 46 11 46 11 45 19	0 A Y 0 A Y 0 A Y	11 14 25 28 35 39 77 77 116	19.4-15.4 19.8-19.8 19.5-15.6 19.3-19.4 19.6-15.7 16.1-18.6 19.3-19.3 13.1-15.4 19.3-19.3 8.5-18.0	19.8 19 15.5 15 19.3 19 15.7 15 17.2 15 19.3 19 16.1 15	.8 1 .5 1 .7 1 .7 .3	19.8 19.7 19.4 14.0	NO NE NO NE NO NE NO NE GRACUAL CRADUAL STRO NG STRO NG STRO NG STRO NG	26-44 16-28	30.6-30.7 31.0-21.1 31.0-31.2 30.0-30.9 30.8-30.9 30.8-30.9 31.9-22.7 31.7-31.9 32.1-22.4 31.1-32.8	31.0 31.1 30.7 30.9 21.0 32.1 31.9	31.0 31.1 30.9 30.8 30.8	3732 3730 3727 3723 3723 3718	75 2 8 75 2 2 75 1 0 74 5 6 74 5 8 74 4 0 74 4 0 74 3 4	0559 1743 0558 1743 0558 1744 0558 1744 0557 1744 0557 1744 0556 1740 0556 1740 0555 1739 0555 1739	3 2 1 1 0 9
J 1 J ? J 3 J 4 J 5 J 6 J 6 J 7 J 7	0- 6 0- 3 0- 6 0- 6 0- 15 0- 15 18-24 0- 15 18-33	1 10 1 13 1 10 2 10 2 10 2 10 2 10 2 10 2 10	2125 2355		14 11 17 20 28 35 35 35	21.4-21.6 21.6-21.6 21.9-22.0 20.4-20.4 20.0-20.1 19.1-19.5 14.5-16.0 20.1-20.1 12.7-20.1	21.6 21 21.9 22 20.4 20 20.1 20 19.4 19 16.6 15	.6 2 1.0 1 1.1 1 1.5 1	21.6 21.2 21.8 20.3 15.7 10.1 10.1 9.5 9.5	WEAK	17-22 16-28 16-28 24-40	26.8-28.9 27.8-29.1 28.4-28.8 30.3-31.2 31.4-31.6 31.8-31.9 31.5-31.6 32.4-32.6 32.0-32.9	28.5 26.5 30.9 21.5 21.8 31.5	28.9 27.8 28.4 30.3 31.5 21.9 31.9 32.5	3655 3655 3654 3653 3652 3650 3650 3648 3648	75 5 2 75 4 5 75 3 2 75 2 1 75 C 2 75 O 2 74 4 4	C555 1744 C558 174 C558 174 C558 174 C557 1744 C556 174 C555 174 C555 1744	7 7 5 4 3 2
K 1 K 2 K 3 K 4 K 5 K 6 K 6 K 7	18~ 33 0 - 15	1 10 1 10 1 10 1 10 1 10 1 10 30 9 30 9 30 9	4010 6010 2016 2016 4850	DAY	17 22 25 25 33 33 49 49 823 823	19.7-21.4 21.4-22.0 19.9-21.9 20.5-21.5 18.8-21.6 12.5-15.9 20.8-24.4 10.8-22.4 21.6-24.8 13.3-25.0	21.1 21 13.9 21 21.6 21 15.0 21 23.0 21	.0 1 .9 .5 .6 .6 .1 .3 .3	19.7 18.9 16.3 14.2 12.3 12.3 11.7 11.7	WE AK WE AK WE AK STRONG STRONG STRONG	15 - 21 12 - 22 15 - 22 11 - 22 11 - 22 16 - 28 16 - 28 23 - 47	30.4-30.9 30.C-30.7 29.5-30.9 30.4-30.8 30.6-30.8 3C.E-21.0 31.3-34.8 31.5-23.9 31.5-24.4 32.7-34.8	3 C · 2 3 C · 3 3 C · 6 3 C · 7 3 C · 9 3 C · 7 2 C · 3 3 3 · 3	30.4	3623 3623 3622 3622 3622 3621 3621 3621	75 4 2 75 3 6 75 2 2 73 1 1 75 1 1 74 5 8 74 5 8	C55E 174 0558 174 0557 174 0557 174 0556 174 0556 174 0554 174 0554 174 0553 174	7 6 6 5 5 6 6 5
1 1 4 2 1 3 1 3 1 4 1 4 1 5 1 5	0- 15 19-33 0- 15	30 9 30 9 30 9 30 9 30 9 30 9 30 9 30 9	0305	L <b>V</b> A	13 22 34 34 45 45 376 276	22.4-22.7 22.6-22.7 21.7-22.5 20.3-21.6 23.1-25.5 10.5-25.4 23.2-24.3 19.2-25.2	22.3 22 21.1 22 24.2 23 19.5 23 23.9 23	1.7 2.5 1.5 1.1 1.1		GR AOUAL S TRONG	- - 25-30	27.8-30.2 29.3-29.9 28.7-31.3 31.8-22.8 31.7-34.7 33.6-35.9 32.1-33.6 33.6-34.8	25.6 30.2 32.3 32.1 34.9 33.2		3546 3546 3546 3546 3545 3545 3545	75 24 75 1 7 75 1 7 75 05 75 05 74 52	0556 174 0556 174 0555 174 0555 174 0554 174 0554 174 0553 174 0552 174	8 7 7 6 6 5
M 1 W 2 M 3 W 4 W 5 M 5	0- 6 0- 6 0- 15 0- 15 0- 15 18- 33	28 9 29 9 28 9	2036 2334 0031	DAY NIGHT NIGHT NIGHT NIGHT NIGHT	14 19 26 58 356 356	23 · E - 23 · 8 23 · E - 23 · 3 22 · 3 - 24 · 3 23 · 3 - 25 · 2 23 · 5 - 25 · 6 25 · 4 - 25 · 7	23.3 23 22.7 23 24.4 23	3.3 2 3.3 3	23.8 25.5 24.6 22.6 13.9 13.9	WEAK WEAK GRÆCJAL WEAK	10-16	31.0-21.0 31.0-31.1 31.0-33.4 31.4-35.1 31.6-35.3 35.1-25.4	31.0 31.5 33.2 33.7	31.0 31.4 31.6	3518 3516 3514 3512 3510 3510	75 2 3 75 1 8 75 1 2 75 0 7	C554 175 0554 175 0553 175 C552 175 0553 174 C552 174	0 7
N 1 N 2 N 3 N 4 N 5 N 5	0- 6 0-15 0-15 0-15 18-33 0-15 18-33	29 9 29 9 29 9 29 9 29 9 29 9 29 9	11925 10722 10535 15 (8 15 CR 1716	0 A W N 0 A Y 0 A Y	22 25 29 45 45 172	25.C-25.0 25.C-25.5 25.5-25.6 25.4-25.5 24.E-25.4 26.5-26.6 24.C-26.2	25.5 25 25.4 25 25.3 25 26.6 26	.5		WE A K		3 4. 3 - 34. 4 3 4.6 - 35. 0 3 5. 2 - 35. 4 3 4. £ - 34. 9 3 4. £ - 34. 9 3 £. 1 - 25. 3 3 5. 0 - 35. 2	34.8 35.3 34.9 34.8 35.2	34.6 35.1 34.9 34.9	3 501 3 456 3 451 3 442 3 442 3 433 3 433	7555 7552 7548 7548 7544	0553 174 0556 175 0556 175 0556 175 0556 175 0556 175 0556 175	8 1 1 1
P 1 F 2 P 3 P 4 P 5 F 5	0- 6 0- 6 0- 6 0- 15 18-24 0- 15 19-33	20 10	0734 0831 1000 1133 1133 1338	DAY CAY DAY DAY	16 15 14 31 31 92 92	21.5-21.9 21.5-22.1 22.1-22.1 23.C-23.C 27.9-22.9 25.4-25.4 24.5-25.4	22.0 21 22.1 22 23.0 23 22.9 23	.9 2.1 3.0 3.4		NONE NONE NONE NONE OR ADUAL GRADUAL	-	34.2-34.3 34.1-34.3 34.2-34.3 34.8-34.9 34.8-34.9 34.5-25.1 34.9-35.0	34.2 34.3 34.8 34.9 35.0	34.2 34.3 34.8 34.9 35.0	3 434 3 425 3 4 1 7 3 4 1 7 3 4 0 4	75 3 7 75 3 6 76 2 2 75 2 3 76 1 3	Cé16 172 0615 172 0615 172 Cé15 172 0615 172 Cé14 172 Cé14 172	6 6 6 6

CRUISE TOW DATE TOW LIGHT DE614 DEPTH 1966 START COND.	WATER *** TEMP DE PTH RENGE [M]	ERATURE (CI ***** MEAN SURF. 80T.		**** SALINITY IO/COI FANGE MEAN	**** POSITION LAT. LONG.	** SUN ** RISE SET
Δ 1	31 9.1-5.3 38 9.3-9.5 38 9.2-5.4 52 9.8-9.9 55 9.7-9.7 56 9.7-9.7 70 9.3-5.3 70 9.3-5.4	5.2 c.1 9.3 9.4 9.5 9.4 c.3 5.5 9.4 9.8 9.8 9.9 9.9 9.8 9.9 5.7 c.7 9.7 9.7 9.7 9.7 5.3 5.3 10.0 9.3 9.3 10.0	P A C C C C C C C C C C C C C C C C C C	32.9-32.9 32.9 32.7-32.9 32.7 32.7-32.9 27.8 32.9-33.0 32.9 32.8-33.1 33.0 32.9-32.9 32.8 32.8-23.0 22.9 32.8-23.0 22.9 32.8-32.9 32.8 32.9-34.0 33.2 33.0-33.2 33.1 33.2-33.3 32.2	22.E 4117 704E 32.7 4112 7047 32.6 4107 7046 32.6 4107 7046 32.8 4057 7044 32.8 4057 7044 32.7 4047 7042 32.8 4032 7040 32.8 4032 7040 32.8 4032 7040 33.0 4017 7037	C 65 2 1614 C 65 1 1615 C 65 1 1615 C 65 1 1615 C 65 1 1615 C 65 1 1616 C 65 0 1616
8 1         0-6         3 12         1937 N 16H           8 2         0-15         3 12         2056 NIGH           8 2         19-24         3 12         2056 NIGH           8 3         0-15         3 12         2210 NIGH           8 3         18-33         3 12         2210 NIGH           8 4         0-15         3 12         2351 NIGH           8 4         19-33         3 12         2351 NIGH           8 5         18-33         4 12         0113 NIGH           8 5         18-33         4 12         0310 NIGH           8 6         0-15         4 12         0310 NIGH           8 6         18-33         4 12         0517 NIGH           8 7         0-15         4 12         0517 NIGH           8 7         19-33         4 12         0517 NIGH	37 9.6-9.7 37 9.6-9.7 48 10.0-10.0 48 9.9-10.1 67 10.1-10.1 13 9.5-9.5 73 9.5-9.5 84 9.8-10.1 84 8.6-10.0 93 9.7-9.8	9.6	NONE - NONE -	31.8-31.9 31.9 32.8-32.9 32.9 33.0-33.0 33.0 33.0-23.1 33.0 33.1-33.4 33.3 33.1-33.3 33.2 32.5-33.5 33.2 32.5-33.1 33.2 32.5-33.1 33.0 33.4-33.4 33.4 33.1-33.6 33.4	31.8 4103 71 51 32.8 4058 71 49 32.8 4C58 71 47 33.0 4054 71 47 33.2 4064 71 44 33.2 4064 71 44 33.2 4034 71 40 33.2 4034 71 40 33.2 4030 71 35 33.2 4020 71 35 33.4 4005 71 25	0.654 16.19 0.654 16.19 0.654 16.19 0.655 16.20 0.655 16.20 0.656 16.20 0.656 16.20 0.657 16.20 0.657 16.20 0.657 16.20 0.657 16.20 0.657 16.20
C 1 0- 6 3 12 0751 CA C 2 0- 6 3 12 0645 DAW C 3 0-15 3 12 0645 DAW C 3 19-24 3 12 1047 DA C 4 0-15 3 12 0412 NIGH C 4 19-32 3 12 0412 NIGH C 5 0-15 2 12 2302 NIGH C 5 19-33 2 12 2022 NIGH C 6 0-15 2 12 2022 NIGH C 6 18-33 2 12 2022 NIGH C 7 0-15 2 12 1727 NIGH C 7 19-33 2 12 1727 NIGH C 7 19-33 2 12 1727 NIGH C 7 0-15 2 12 1755 DA	28	\$\frac{9}{10.1}\$ \$\frac{9}{10.3}\$ \$\frac{9}{10.3}\$ \$\frac{10.3}{10.1}\$ \$\frac{10.3}{11.0}\$ \$\frac{10.3}{10.9}\$ \$\frac{10.9}{11.1}\$ \$\frac{10.9}{10.9}\$ \$\frac{11.3}{11.3}\$ \$\frac{11.3}{11.4}\$ \$\frac{11.3}{10.9}\$ \$\frac{11.4}{10.9}\$ \$\frac{10.9}{9.6}\$ \$\frac{10.9}{10.5}\$ \$\frac{9}{10.5}\$ \$\frac{9}{10.5}\$ \$\frac{8}{10.9}\$ \$\frac{10.5}{10.9}\$ \$\frac{10.5}{10.6}\$ \$\frac{10.5}{10.9}\$ \$\frac{10.6}{10.5}\$ \$\frac{10.5}{10.9}\$ \$\frac{10.6}{10.6}\$ \$\frac{11.0}{10.0}\$	NON E - NONE - NOE - NONE - NO	22.6-23.0 22.9 32.9-33.0 33.0 32.0-33.1 32.1 33.1-33.2 32.1 32.8-33.1 32.9 32.6-23.3 23.1 33.0-33.1 33.1 33.0-33.3 33.1 32.9-33.2 33.1 32.9-33.2 33.1 32.9-33.2 33.1 32.9-33.2 33.1 32.9-33.2 33.1 33.1-33.4 33.2 33.1-33.4 33.2	32.6 4 (35 73 17 32.9 4031 73 14 33.0 4027 73 10 33.0 4027 73 10 33.0 4019 73 03 33.0 4019 73 03 33.0 4010 725 5 33.0 3588 72 44 33.0 3588 72 44 33.0 3588 72 44 33.0 3588 72 32 33.0 358 72 32 33.0 358 72 32 32 33.0 358 72 32 32 33.0 358 72 32 32 33.0 358 72 32 32 33.0 358 72 32 32 33 358 72 32 32 33 358 72 32 32 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 32 22 32 33 34 34 32 22 32 33 34 34 32 22 32 34 34 34 34 34 34 34 34 34 34 34 34 34	0655 1626 0655 1626 C658 1627 C658 1627 0701 1630 C701 1630 C65 1626 0655 1626 0655 1626 C655 1626 C655 1626 C655 1626 C655 1626 C655 1626 C655 1626 C655 1626
D   1	21 8.5 - 5.0 27 10.0 - 11.0 25 10.3 - 10.5 36 11.3 - 11.7 36 11.4 - 11.5 52 11.3 - 11.5 76 11.0 - 11.0 76 11.0 - 11.0 110 10.5 - 10.5	10.0 10.0 10.6 10.4 10.3 10.2 11.4 11.3 11.3 11.5 11.3 11.3 11.4 11.4 11.6 11.4 11.4 11.6 11.0 11.0 9.4 11.0 11.0 9.4 10.5 10.5 11.0	NONE - NONE - NONE - NONE - NONE - NONE - NONE - NONE - STRONG 51-56 STRONG 51-56	32.1-32.2 32.2 31.5-31.7 31.6 32.1-32.7 32.4 32.7-33.0 32.9 32.8-33.3 33.1 32.8-33.2 33.0 32.8-33.2 33.0 32.8-33.2 33.1 33.0-33.2 33.1 33.0-33.2 33.1 33.1-33.4 33.2 33.3-33.3 33.3	32.1 3551 76 C4 31.6 3948 7359 32.4 3645 7354 22.9 3939 7342 32.8 3932 7333 32.8 3932 7315 33.0 3923 7315 22.9 3914 73 02 32.5 3914 73 02 33.2 3906 7250 33.2 3906 7250	(702 1636 0657 1632 0657 1632 0657 1632 0656 1630 0656 1630 0654 1630 0654 1630 0657 1633 0657 1633 0657 1633
F 1 0- 6 9 11 2248 NIGH F 2 0- 6 9 11 2340 NIGH F 3 0- 6 10 11 0040 NIGH F 4 0-15 10 11 0528 NIGH F 5 0-15 10 11 0528 NIGH F 5 19-33 10 11 0528 NIGH F 6 0-15 10 11 0722 0A F 6 18-33 10 11 0722 0A F 7 0-15 10 11 0722 0A F 7 18-33 10 11 1200 0A F 8 0-15 19 11 0201 NIGH F 8 13-33 19 11 0201 NIGH	16 12.8-13.0 15 13.3-13.4 24 12.8-12.2 39 12.9-13.1 25 12.5-12.8 41 13.0-13.2 41 12.6-13.2 65 13.6-13.6 65 13.6-13.8 103 11.5-11.5	12.9 13.0 12.8 13.3 13.4 12.8 13.1 13.2 12.7 13.0 13.1 12.5 12.6 13.1 12.5 13.1 12.0 12.3 13.0 13.0 12.3 13.6 13.6 9.2 13.7 13.6 9.2 11.5 11.5 10.9	NO NE - NO NE - STRONG 44-52 STRONG 44-52	31.1-31.3 31.2 32.1-22.1 32.1 32.2-22.3 22.2 32.7-22.8 32.8 31.1-23.1 22.4 33.0-33.3 33.1 22.5-32.1 22.9 33.1-33.3 33.2 33.2-33.4 33.3 32.0-23.3 22.2 34.1-34.2 34.1 34.6-34.3 34.1	31.0 3917 7431 32.1 3514 7425 32.2 3511 7420 32.8 3705 7409 33.1 3859 7355 33.1 3859 7355 32.9 3854 7349 32.9 3854 7345 33.2 3845 7333 33.2 3845 7333 34.1 3836 7318	C633 1647 C633 1647
F 1 0-6 11 11 0602 NIGH F 2 0-6 11 11 0515 NIGH F 3 0-15 11 11 0452 NIGH F 4 0-15 11 11 0312 NIGH F 5 0-15 11 11 0126 NIGH F 5 13-24 11 11 0126 NIGH F 6 0-15 10 11 2303 NIGH F 6 18-33 10 11 2303 NIGH F 7 0-15 18 11 2203 NIGH F 7 18-33 18 11 2203 NIGH	20 13.6-14.3 26 14.5-14.7 22 14.2-14.3 37 13.8-13.9 37 13.6-12.8 51 13.1-13.6 51 13.4-12.7 69 12.8-12.9	14.0 13.6 13.9 14.6 14.7 14.2 14.2 14.3 14.2 13.9 13.9 12.8 12.8 12.9 12.8 13.4 13.6 12.2 12.6 13.6 12.2	NONE - NONE - NONE - NONE - NONE - WEAK 33-39 WEAK 33-39 WEAK 28-40	31.4-31.8 31.6 31.8-31.9 21.8 32.5-32.8 32.6 32.6-33.0 32.9 23.0-32.2 33.1 33.0-33.1 33.1 32.2-23.3 32.2 33.3-33.9 33.6 34.1-34.6 34.2 34.6-35.3 34.8	31.3 3846 7502 31.6 3E43 7458 22.6 3E47 7452 32.8 3835 7441 33.0 3829 7430 33.0 3829 7430 33.2 3821 7413 34.2 3813 7357 34.2 3813 7357	C637 1650 C636 1650 C636 1650 C635 1649 O635 1649 C633 1649 C633 1649 O640 1642
G 1	17 14.4-15.0 16 15.2-15.7 25 15.0-15.5 45 14.3-14.8 45 14.0-14.3 88 14.7-15.4	15.5 15.6 15.5 15.4 15.4 13.0 14.6 14.8 10.5	STRONG 26-28 STRONG 40-51	32.4-32.4 32.4 32.6-32.6 32.6 32.4-32.9 32.8 32.9-23.1 33.1 32.3-33.5 33.4 33.5-23.E 23.6 33.9-34.7 34.2 34.5-34.8 34.7	32.4 3807 75 CS 32.5 3804 75 0 4 32.6 3801 745 9 32.9 3756 74 4 6 33.3 3750 74 3 8 33.3 3150 74 3 8 33.9 3142 74 2 2 33.9 3142 74 2 2	C 63 6 16 52 O 63 6 16 52 C 63 5 16 51 C 63 5 16 51 C 63 5 16 51 O 63 4 16 50

	F TOW DATE FOW L DEPTH 1965 SFART ( (M) D M FST		**** TEMPERAT RINGE ME			THE RMDCLIN DEGREE DEP IM	14 (0	(00)	LAT. LONG.	* * SUN ** PISE SET
H 1 2 3 4 4 5 5 6 6 7 7 H	0-6 12 11 4141 0-6 12 11 4141 0-6 12 11 4041 0-15 12 11 4041 0-15 12 11 4754 18-32 12 11 4754 0-15 12 11 4609 0-15 12 11 4609 0-15 12 11 4503 N		15.1-15.2 15 15.6-15.5 15 14.9-15.6 15 14.4-15.3 14 14.0-14.3 14	.1 15.2 .9 15.8 .2 15.6 .8 15.3 .2 15.3 .7 14.5 .5 14.5	15.2 15.3 14.7 14.0	NONE - NONE - NONE - GRADUAL - GRADUAL - STRENG 56-7 STRENG 43-5 STRONG 43-5	C 35.1-35.3 3 2 33.8-34.6 3	2.5 32.3 2.7 32.5 3.1 32.8 3.5 33.3 3.9 23.3 3.9 33.8 5.3 33.8 4.0 23.7	3730 7522 3727 7510 3723 7458 3723 7456 3718 7440 3718 7440 3716 7434	C636 1654 C638 1654 O637 1653 C637 1653 O636 1652 C636 1652 O635 1651 C634 1650 O634 1650
J 1 J 2 J 3 J 4 J 5 J 6 J 6 J 7 J 7	0-6 12 11 2327 N 0-6 13 11 036 N 0-6 13 11 026 N 1-15 14 11 1348 0-15 14 11 1727 N 0-15 14 11 1737 N 0-15 14 11 2329 N 0-15 14 11 2329 N	VIGHT 10 VIGHT 16 DAY 22 VIGHT 26 VIGHT 35 VIGHT 35	15.1-15.3 15 15.(-15.2 15 14.5-15.0 14 14.6-14.7 14 14.2-14.4 14 14.5-14.6 14 13.6-13.5 13	.2 15.1 .1 15.2 .9 14.9 .6 14.6 .3 14.3 .5 14.3	15.2 15.3 15.0 14.4 14.3 14.3 11.9	NONE - WEAK 37-4		1.8 32.0 2.4 22.2 3.2 33.2 2.8 33.8 4.4 34.3 4.4 34.3	3655 7558 3655 7552 3654 7545 3653 7533 3652 7521 3650 7502 3650 7502 3648 7444 3648 7444	C635 1653 0639 1655 C635 1655 0639 1654 C638 1653 0637 1652 C636 1651 C636 1651
K 1 K 2 K 4 K 5 K 6 K 6 K 7 K 7	0-6 13 11 0842 0-15 18 11 0929 0-15 18 11 1022 0-15 18 11 0325 N 19-24 18 11 0325 N 0-15 18 11 0155 N 0-15 17 11 2236 N 19-33 17 11 2127 N	11GHT 33 11OHT 27 11GHT 37 11GHT 47 11GHT 47 11GHT 397	14.1-14.7 14 14.7-14.7 14 14.5-14.7 14 14.5-14.6 14 14.5-14.8 14 14.4-14.5 14 13.5-14.1 14 13.5-14.1 14	.4 14.2 .7 14.7 .6 14.7 .5 14.7 .7 14.8 .4 14.8 .0 14.2 .0 14.2 .0 14.2	14.6 14.7 14.9 14.5 14.5 13.9 13.9 14.0 11.6	NONE -	33.2-33.3 3 32.3-33.8 3 33.6-34.0 3 34.1-34.1 3 34.2-34.4 3 34.2-34.9 3 34.6-34.9 3 34.6-34.9 3 34.6-34.9 3 34.6-35.0 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	32.3 33.8 33.7 4.1 34.1 34.1 34.3 34.3 34.3 34.3 34.6 34.6 34.6	3623 7548 3623 7542 3622 7533 3622 7523 3622 7511 3621 7458 3621 7458 3621 7446	0641 1653 0643 1653 0642 1652 0642 1652 0642 1652 0641 1651 0641 1651 0643 1650 0638 1649
1	0-6 17 11 1728 0-6 17 11 1754 0-15 17 11 1767 19-24 17 11 1707 0-15 17 11 1357 18-33 17 11 1545 18-33 17 11 1545	DAY 21 DAY 32 DAY 32 DAY 32 DAY 41 DAY 41 DAY 355 DAY 355	14.2-14.4 14 15.0-15.2 15 14.9-15.1 15 14.8-15.0 14 14.9-15.3 15 14.6-14.8 14 14.9-15.1 14 15.3-15.5 15	.1 15.2 .0 15.1 .9 15.1 .1 15.3 .7 15.3	15.0 15.0 15.0 14.6 14.6	NONE - NONE - NONE - NONE - NONE - NONE - GRADUAL - GRADUAL -	31.0-31.6 3 33.3-33.5 33 33.6-23.6 3 33.3-33.8 3 34.2-34.6 3 34.6-34.7 3 34.5-35.3 3 35.4-25.6 3	3.4 33.2 2.7 22.7 3.5 33.7 4.4 34.3 4.6 24.3 4.8 34.7	3546 7517 3545 7505	0640 1654 C635 1653 0635 1653 0637 1652 C637 1652 0636 1651
N 1 M 2 M 3 M 4 M 5 M 5	0- f 16 11 15 30 0- 6 16 11 1440 0-15 17 11 40 20 0- f 16 11 23 39 6 0-15 15 11 22 48 N 18-33 16 11 22 48 N	ITGHT 41 ITGHT 138		.0 15.1 .0 16.0 .5 17.6 .8 18.8	14.7 15.0 16.1 17.9 19.2	NONE - NONE - NONE - NONE - NONE -	33.4-33.5 33 33.7-33.8 33 34.0-34.3 36 35.0-35.1 2 35.5-35.7 39 35.6-35.8 36	3.7 33.6 4.2 34.1 5.1 34.5 5.6 35.5	3518 7525 3516 7525 3514 7518 3512 7512 3510 7507 3510 7507	C 638 1656 0637 1654 C 636 1655 0635 1654
N 2 3 N 4 4 5 5 N 5	0-6 16 11 1034 0-15 16 11 0937 0-15 16 11 0833 19-24 16 11 0833 0-15 16 11 0766 18-33 16 11 0766 0-15 16 11 0718 18-33 16 11 0318 N		16.4-16.4 16 18.6-18.8 18 19.3-16.5 15 19.4-16.5 15 22.6-23.2 23 23.0-22.3 22 24.1-24.2 24 23.6-24.1 24	.7 18.8 .4 19.3 .4 19.3 .0 22.9 .2 22.9		NONE - NONE - NONE - NONE - NONE - NONE - CRAOUAL - GRAOUAL -	34.C-34.0 34.35.5-25.6 34.35.6-35.8 35.6-25.9 34.0 36.9-37.0 34.37.4-27.6 34.37.2-37.5 34.0 34.0 34.0 34.0 34.0 34.0 34.0 34.0	5.6 35.5 5.8 35.6 5.9 35.6 7.0 37.0 5.9 37.0 7.5 37.5	3451 7552 3451 7552	C635 1654 C638 1658 C638 1658 C637 1658 C637 1658 C637 1658
P 1 F 2 P 3 F 4 P 5 F 5	0-6 15 11 4557 N 0-6 15 11 4966 N 0-6 15 11 4753 N 0-15 15 11 4617 19-24 15 11 4617 0-15 15 11 4428 19-33 15 11 4428	116HT 17	16.C-16.1 16 16.7-17.0 16 17.7-17.7 17 20.E-21.4 21 21.4-21.5 21 23.C-23.1 23 23.1-23.1 23	.7 17.7 .1 20.8 .4 20.8 .1 23.0	16.3 17.1 17.9 21.4 21.4 22.2 22.2	NC NE - NONE - NONE - NONE - NONE - NONE -	34.7-34.9 34 34.6-34.9 34 34.7-24.8 3 36.2-36.3 36 36.8-37.0 36 36.8-37.0 36	34.R 4.7 34.7 5.2 36.2 5.0 36.2 5.9 36.9	3438 7640 3434 7537 3425 7636 3417 7623 3417 7523 3404 7612 3404 7513	0639 1702 0639 1702 0635 1703 0635 1703 0631 1702

Table 3. Eggs and larvae of fishes identified from R. V. Dolphin ichthyoplankton survey, listed by station.

CPUISE DATE D65 4 1565 STA. D M SPECIES ANALYZED C L C3 12	************* LARVAE ************************************	************* LARVAE ************************************	
MERLUCCIUS BILINFARIS PARALICHTHYS CENTATES SCORHTHALMUS AQUOSUS ACDITIONAL LARVAE CAUCHT	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.1 0.C 0.1 0.0 0.6
			• • • • • • • • • •
C 2 C3 L2  BRE WIDER TIA TYPANNUS  ENCHELYOPUS CIMBRIUS  UFCPHYCIS SP.  PARALICHTHYS DENTATES  SCCPHTHALMUS AQUISUS	SAMPLING DEPTH C-15M  1		0.3 0.3 0.3 0.6 0.0 2.4
C 3 C4 12	SAMPLING DEPTH 0-15M	SAMPLING DEPTH 18-33M	
CLUFEA HARFNOLS HAP ENGUS ENCHEL YIP LS CIMBRAUS GABLS MORHUA MEPLUCCIUS BILLINEARIS PARALICHTHYS CENTATUS SCERHTHALMUS AQUOSUS	2 2 8.0 6.3 - 9.6 SL 0 147 0 2 2 10.8 10.1-11.5 SL 0 2 2 6.5 6.4 - 6.6 SL	1 1 17.5 EL 5	0 .3 0 0.7 C. C 57 0.0 63.1 0 0.3 0.0 0 1.3 0.0 9.6
C 4 (4 12 FACHELYDPUS CIMBRIUS GAOLS MORHUA UPOPHYCIS SP. MERLUCCIUS BILINEARIS ETPCPUS MICROSTOMIS PARILICHT HYS CENTATUS SCOTHTHALMUS ADUNGUS ADDIT IDNAL LARVAE CAUGHT	SAMPLINE DEPTH 0-15M  1 1 3.7 SL 0 10 8 5.3 3.5- 6.5 SL 16  2 2 4.6 4.2- 5.0 NL 0  4 4 7.2 6.4- 8.0 SL 0  8 6 5.2 4.5- 6.5 SL  UNIOENTIFIED	2 2 4.5 4.3-4.6 SL 3 9 9 6.2 2.8-11.1 NL 17 17 8.5 3.2-53.0 NL 1 1 5.9 SL	0 0.3 0.C 38 3.7 17.5 3.0 0.C 0 6.3 0.C 0.3 0.C 7.7
			• • • • • • • • • • • •
C 5 (4 12 URCEPYCIS SP. MEP LUCCIUS BITT NEARIS PARALICHT HYS CENTATUS	SAMPLING DEPTH 0-15M 1		1.6 0 10.6 0.0 0 1.0 0.0
6 ( . ( . 12	SAMPLING DEPTH 0-15 M	SAMPLING DEPTH 1E-33M	
C 6 C4 12 UFCFHYCIS SP. MFP LUCCIUS BILI NEAPIS PAPALICHT HYS CENTATUS SCORHTHALMUS AQUINUS	4 5.6 4.5- 7.2 NL 6 6 8.3 7.0- 8.9 NL 0 2 2 7.7 7.3- 8.2 SL 0	27 27 7.4 4.4 5.6 NL	1.3 0 10.8 0.0 0 1.3 0.0 0.3
C 7 C4 12 UPDPHYCIS SP. MERUICCIUS BILINFAP IS CITHAPICH THYS ARCFI FPCNS PARALICHT HYS DENTATUS	SAMPLING DEPTH 0-154 5 4 6.6 5.7- 7.2 NL 0 1 1 7.5 SL 0	2 2 6.7 5.5~ 7.8 SL	0 8.7 0.C 0.7 0.C
	SAMPLING DEPTH 0-15 M	SAMPLING CEPTH 18-23M	
C 8 (4 12 UFCEHYCIS SP.	1 1 6.9 NL	SAMPLING LEPTH TE-13M	0.3
		• • • • • • • • • • • • • • • • • • • •	
C 1 C5 12 BEE VOORTIA TYFANNUS PARALICHTHYS DENTATES SCEPHTHALMUS AQUONUS ADDITIONAL LARVAE CAUGHT			0.7 0.2 4.7
D 2 (5 12 BREVOORTIA TYPANNUS PAPALICHTHYS CENTATIS SCOPHTHALMUS ADUDSUS	SAMPLINC CEPTH 0- 9M 1		0.2 0.2 0.2 12.4
D 3 (5 12 GACLS MORMUA UROPHYCIS SP. MFREUCCIUS BILINEARIS PARALICHTHYS CENTATUS SCOPHTHALMUS ADUNCLS	SAMPLINC CEPTH 0-15 M 16 14 4.6 3.4-6.8 SL 92 4 3 6.3 3.9-10.9 NL 1 1 4.2 14 14 6.0 3.8-11.2 SL 0 171 50 4.2 3.1-5.3 SL		4.8 27.5 1.2 0.3 0.0 4.2 0.0 51.8

CPUISE DATE D65 4 1565 STA. D M SPECIES ANALYZED C 4 C5 12	NUMBER LENGTHS (MM) NO. IDTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M	NUMBER LENGTHS IMMI ND. TOTAL MEAS. MEAN PANGE MEAS. EGGS SAMPLING CEPTH 18-24M	NO. PER 10 M LAPVAE EGG S
BRE VOORTIA TYFANNIS CLUSEA FABENGUS HAR ENCUS ENGFAULIS EURYSTOLE GADUS MORPHA	1 1 27.7 TL 1 1 37.3 TL 3 3 5.5 4.9- 6.5 SL 0	1 1 16.9 TL  13 13 4.4 3.2- 5.3 SL 50	0.2 0.3 0.3 3.0 6.1
UFCENYCIS SP. MEPLUCCIUS BILINEAR IS	7 5 4.7 3.2- 7.3 NL 1 0	6 5 3.7 3.1 - 4.4 NL 0	3.1 0.3 0.0
CITEARICHTHYS ARCTIFRONS PARALICHTHYS DENTAILS SEPPHTHALMUS AQUISUS	37 36 6.6 4.5- 9.6 SL 0 191 50 4.8 3.0- 6.1 SL	1 1 5.8 SL 19 19 5.7 3.4- 8.9 SL 203 50 4.5 3.0- 7.8 SL	0.2 14.4 0.0 \$1.5
0 5 (5 12	SAMPLING DEPTH 0-15M	SAMPLING DEPTH 18-33M	
GACLS MORHJA UPOPHYCIS SP.	5 4 4.4 3.5- 5.8 SL 55 6 6 4.3 3.9- 5.1 NL	19 17 4.2 3.3 - 5.3 SL 77 9 5 4.6 2.8 - 6.0 NL	7.8 42.2 4.8
MEPLUCCIUS BILINEAR IS PARALICHTHYS CENTATUS	3 3 4.4 3.7-5.1 NL 0 38 28 6.3 3.8-8.4 SL 0	0 53 51 5.5 3.9- 7.4 SL 0	1.0 0.C 29.1 0.0
SCOPHTHALMUS AQUINUS ADDITIONAL LARVAE CAUCHT	155 50 4.7 2.9- 7.7 SL	218 50 4.1 2.7- 6.9 SL UNIDENTIFIEO	1 19.2
0 6 05 12	SAMPLING DEPTH C-15M	SAMPLING OFFTH 18-33M	
GADES MORHUA UPOPHYCIS SP.	2 2 5.5 5.2- 5.8 SL 0 2 2 3.7 3.6- 3.9 NL	9 8 5.3 4.4- 6.8 SL 0 4 4 5.4 3.9- 6.9 NL	3.6 0.0 1.9
MERIUCCIUS BILINFARIS CITHARICH THYS ARCTIFRONS	10 8 3.7 3.1- 5.0 NL 0 2 2 4.6 3.1- 6.1 SL	28 27 3.9 2.4- 5.1 NL 0	12.3 0.0
PARALICHTHYS EENTATUS SCOPHTHALMUS AQUOSUS ADOITTONAL LARVAE CAUGHT	40 40 6.4 3.1- 8.0 St 0 56 53 4.1 2.8- 5.7 St	25 25 5.9 3.8- 7.7 St 0 139 50 4.1 2.9- 5.7 St UNIDENTIFIEC	20.3 0.0 63.1
			• • • • • • • •
C 7 C6 12 URCHYCIS SP.	SAMPLING DEPTH 0-15M 1 1 6.1 NL	SAMPLING CEPTH 18-33M	0.3
MER LUCCIUS BILINEAR IS C IT HAR ICHTHYS ARCF I FRONS	3 3 24.5 10.6-23.2 NL 0	2 2 36.5 20.5-52.5 NL 0 2 2 7.4 6.4-8.3 SL	1.6 0.0
PARALICHTHYS DENTATIS SCOPHTHALMUS AQUINSUS ADDITIONAL LARVAE CAUGHT	3 3 7.0 6.4- 8.3 SL 0 3 2 4.9 4.5- 5.3 SL UNIDENTIFIED	7 5 4.3 4.0- 4.7 SL	1.0 0.0
P 8 06 12 ENGRAULIS FURYSTOLE	SAMPLING DEP TH 0-15M	SAMPLING CEPTH 18-33M	0.3
DIAFHIS SP. UPCFHYCIS SP.	1 1 9.5 St	1 1 9.3 3 10.5 7.5-15.9 NL	0.6
MEPLUCCIUS BILINFARIS BCTHUS OCELLATUS CITHARICH THYS ARCTIERONS ACOIT DONAL LARVAE CAUGHT	2 2 11.1 9.2-13.1 NL 0 3 3 8.6 7.1- 9.8 SL	1 1 14.5 NL 0 5 5 8.8 7.9-10.6 SL 4 4 7.6 6.8- E.6 SL CALLICNY M 10 FE	0.9 C. C 1.7 2.2
		UNIDENTIFIED	
F 1 C7 12 GADIS MORHUA SCEPHTHALMUS ADUDSUS	SAMPLING DEPTH C- 6M 1 1 3.9 SL 0 29 23 5.1 2.9-14.1 SL		0.1 3.5
			• • • • • • • •
E 2 (7 12 CLUFFA HARENGUS HARENGUS GADILS MODHUA PARALICHTHYS CENTATLS SCCEPHTHALMUS JOUDSUS	SAMPLING CEPTH C-6M 1 1 13.7 TL 1 1 3.5 SL 0 3 3 7.3 5.9-8.2 SL 0 119 50 4.2 3.1-6.1 SL		0.1 0.1 0.4 0.4 14.4
A DOITIONAL LARVAE CAUGHT	GDBIIDAE UNIDENTIFIED		
F 3 C7 12 GAOLS MEPHUA	SAMPLING DEPTH C- 6M		0.0 0.5
PARALICHTEYS DENTATES SCEPHTHALMUS ADUDSUS ADDITIONAL LARVAE CAUGHT	1 1 5.5 SL 0 30 15 4.6 3.5- 6.2 SL UNIDENTIFIED		0.1 0.0
F 4 C6 12	SAMPLING DEPTH 0-15M		
GADUS MORHJA UFDEHYCIS SP. MERLUCCIUS BILLNEARIS PARALICHTHYS CENTATUS SCOPHTHALMUS ADUDNUS ADDITIONAL LARVAE CAUGHT			1.8 6.7 2.1 0.6 0.0 11.5 0.0
F 5 (6 12	SAMPLINE DEPTH 0-15M	SAMPLING CEPTH LE-23M	
UFCEHYCIS SP.  MEPIUCCIUS BILINFAPIS  PARALICHTHYS CENTAILS  SCCFHTHALMUS AUDNUS  AUDITINAL LARVAE CAUGHT	1 1 4.4 NL 0 10 10 5.3 3.2-6.7 SL 0 38 21 3.6 2.7-4.8 SL	1 1 3.C NL 0 15 15 5.6 4.0- 7.6 SL 0 UNIDENTIFIEC	0.3 0.3 8.0 12.7

CRITISE DATE DAS 4 1965 STA. D 4 SPECIES ANALYZED E 6 C6 12 GADIS MORHUA	NUM EER LENGTHS (MM) ND. NUMBER LENGTHS (MM) ND.  TOTAL MEAS. MEAN RANCE MEAS. ECCS TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15M  1	NO. PER 10M LARVAE EGGS
UPOPHYCIS SP.  MERLUCCTUS BILINEAR IS CITHARICH THYS ARBILERONS PARMICHTHYS CENTATUS	l I 4.2 NL 3 3 3.4 2.7- 4.2 NL 0 3 3 3.7 3.4- 3.9 NL 0 1 1 5.6 SL 6 6 6 6 3.4- 7.2 SL 0 7 7 6.0 4.7- 8.2 SL 0	0.2 1.4 0.0 0.3 3.0 0.0
SCOPHTHALMUS 40UDNUS	7 7 4.5 3.0- 6.1 SL 7 5 4.6 3.6- 6.0 SL	3,3
F 7 (6 17 LOPHIUS AMERICANUS LIFESHYCIS SP. MER LUCCILIS BILINEARIS CITHARICHTHYS ARCTIFRONS PARALICHTHYS LENTAILS	SAMPLING DEPTH 0-15M	0.3 0.9 1.9 0.0 1.3 0.7 0.0
E B CF 12 CERATD SCOPELUS MADERENSIS GADUS MORHUA PARALICHTHYS DENTATIS SCOPHTHALMUS AQUINUS ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-33M  1 1 14.1 SL 2 0 0 0 2 1 E.4 SL 0 CDB110AE	0.3 0.7 C.C 0.7 0.0
F 1 C9 12	SAMPLING DEPTH C- 9M	
B PE VOOR TEA TY FAINNUS ANCHOA MITCHILL! SCCFHTHALMIS JOUNGUS A DOLFTONAL LARVAE CAUGH	2 2 30.0 29.4-30.6 TL 39 39 28.7 14.6-45.9 TL 1 1 7.7 SL	0.4 7.1 0.2
F 2 (9 12 P P F V DORTI A TYPANNUS ANCHEA MITCHILLI PAR MICHTHYS DENTATLS SCOFFITHALMUS ADUNSUS ADDITIONAL LARVAE CAUGH	SAMPLINC DEPTH 0- 9M 1	0.2 1.8 0.2 c. c
F 3 (9.12 GADUS MORHIA PARALICHTHYS CENTATUS SCOPHTHALMUS AQUONUS	SAMPLIN( CEPTH 0-15M 1 0 2 2 9.6 9.0-10.3 St 0 16 15 4.6 2.7- 6.0 St	0.3 C.C 0.6 0.0 4.8
F 4 10 17  9REVOORTIA TYPANNIIS GADLS MORHJA MERLIFCIUS BILINFARIS 9/PRICHTFYS CENTATUS SCOPHTHALMUS AQUOSUS ADDITIONAL LARVAE CAUGH	SAMPLINC CEPTH 0-15M  1	0.3 3.3 42.7 0.3 0.0 6.1 0.0 64.2
F 5 10 12	SAMPLING DEPTH 0-15M SAMPLING CEPT F 18-23M	
CACUS MORPUA MERUICCUS BILINFARIS PAPALICHTHYS DENTATUS SCOPPITHALMIS AQUINUS	L 1 3.9 SL 36 9 7 4.6 4.2- 4.9 SL 39 0 2 2 3.3 2.8- 3.8 NL 0 1 1 4.2 SL 0 14 14 5.2 3.8- 8.1 SL 0 4 3 3.5 2.8- 4.7 SL 15 13 4.1 2.7- 5.9 SL	3.3 23.E 0.7 0.C 5.0 0.0 6.2
F 6 10 12	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-23M	
HECEPTOIS SP. MERIUSCIUS BILINEARIS CITHARICHTHYS ARCEIFRONS RERELICHTHYS CENTATIS SCOPHTHALMUS AQUONUS	4 4 5.7 4.3- 7.2 NL 9 2 2 4.8 3.9- 5.8 NL 0 1 1 8.7 SL 1 1 6.5 SL 0 2 2 8.5 8.0- 9.0 SL 0 4 4 5.4 4.2- 7.7 SL	1.3 0.7 0.6 0.7 1.3
F 7 10 12 UPECHYCIS SP. MERLUCCIUS BILINEARIS CITHARICHTHYS ARCHIFPONS PARMICHTHYS CENTATES	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-23M  2 2 6.4 4.7- 8.2 NL  2 2 9.8 6.0-13.6 NL 0 7 6 7.3 3.8-11.0 NL 0  1 1 7.4 SL 3 3 8.7 7.2-10.4 SL  1 1 6.9 SL 0 1 1 7.4 SL 0	0.7 2.9 0.0 1.3 0.6 0.0
G 1 II 12 ANCHDA MITCHILLT SCCFHTHALMIS ADUDNUS ADDITIONAL LAPVAE CAUGHT		0.5
C 2 II 12 PARTICHTHYS DENTATES SCOFFITHALMIS AQUINITS ADDITIONAL LARVAE CAUGHT	SAMPLING CEPTH 0- 3M 2 2 4.7 4.4- 5.0 SL 0 47 47 4.0 2.4- 5.6 SL	0.1 C.C

CRUISE DATE E65 4 1965 STA. D M SPECIES AMALYZED C 3 10 12	**************************************	
RREVORTIA TYFANNIS CAOLS MORHUA PARALICHTHYS CENTATUS SCOFHTHALMUS ADUONUS	6 6 11.8 10.6-13.7 TL  7 7 6.3 3.7- 7.5 SL 0  19 19 4.3 3.2- 6.8 SL	0.7 0.0 0.8 0.0 2.3
C 4 10 12  AREVOORTIA TYRANNIS  GADLS MORHJA  UROPHYCIS SP.  RAPALICHTEYS EENTATUS  SCOPHTHALMUS AQUONUS  ADDITIONAL LARVAE CAUGHT	SAMPLINE DEPTH 0-15M 2 2 12.3 10.2-14.4 TL 1 1 5.6 SL 3 3 3 10.6 5.8-14.8 NL 6 6 5.5 4.7-7.5 SL 0 27 27 5.0 2.9- 6.4 SL GOBIIDAE	0.6 0.3 0.9 1.8 8.2
C 5 10 12 CACLS MORPHUA UPCHAYCIS SP. PARALICHT HYS DENTATES SCORNTH ALMUS AQUONUS	SAMPLING DEPTH 0-15M SAMPLING DEPTH 16-23M 8 7 5.1 4.1- 7.5 SL 0 1 1 4.3 NL 2 1 5.2 SL 0 7 7 5.6 4.2- 6.4 SL 4 4 4.7 4.2- 5.2 SL	2.7 0.0 0.3 0.7 0.0
6 6 10 12 GADLS MORHUA HEFEHYCIS SP. MEPHUCCIUS BILINEARIS CHTEARICHTHYS ARGITEDONS PAPALICHTHYS TENTATUS SCOPHTHALMUS ADUDSUS	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-33M 0 5.2-7.2 SL 0 0 0 2 2 3.8 3.5- 4.2 NL 1 1 4.3 NL 0 1 1 6.8 NL 0 1 3 3 6.7 6.3-7.2 SL 8 8 6.6 4.4-8.0 SL 0 3 3 4.5 4.1-5.0 SL	0.7 0.6 1.0
H 1 11 12 ANCHOA MITCHILL 1 ENGRAULIS EURYSTOFF MICROPOGON UNDULAFUS SCOFHTHALMUS ZOUDSUS	SAMPLING DEPTH 0-6M 1 1 29.C TL 1 1 36.7 TL 2 2 7.3 6.9-7.7 SL 3 3 3.6 3.2- 4.2 SL	0.1 0.1 0.2 0.4
F 2 11 12 PARALICHTHYS DENTATES SCENTHALMUS AQUISUS	SAMPLING DEPTH C- 6M 3  3  4.6  3.2- 5.5 SL  0 19  18  3.4  2.5- 4.4 SL	0.4 0.0 2.3
F 3 II 12  REEVOORTIA TY FANNAS GADLS MORHUA UFCEFYCIS SP. PARALICHTEYS LENTATUS SCOPHTHALMUS AQUOSUS	SAPPLING DEPTH C-6M 2 2 12.1 10.2-14.0 TL  1 1 4.8 17 16 6.4 5.1- 7.7 SL 8 8 3.6 2.5- 4.6 SL	0.2 0.0 0.5 0.1 2.1 0.0
H 4 11 12  R PEVOORTIA TY PANNIS  UPO FHYCIS SP.  R AR ALICHTHYS DENTATLS  SCC FHTHALMUS JOURSUS	SAMPLING DEPTH 0-15M 2 2 11.8 10.9-12.8 TL 1 1 4.2 NL 4 4 7.3 6.6-8.3 SL 1 1 4.7 SL	0.6 0.3 1.2 C.C
F 5 11 12 UPCEMYCIS SP. PARALICHTHYS MENTATES SCCENTHALMUS AQUONUS	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-24M  1 1 4.7 NL 10 1C 6.3 4.8-8.3 St 0 1 1 7.1 SL C 5 5 4.4 3.3-5.8 SL 4 4 5.2 4.4-5.7 SL	0.3 3.2 E.E 2.2
SYMBOL OPHICRUS VERANYI MIPLUCCIUS BILINEARIS CITEARICHTHYS ARCLIFRONS PAPALICHTHYS DENTATUS SCCENTHUMIS AQUISUS ADDITIONAL LARVAE CAUCHT		1.3
H 7 11 12	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-33M	
J 1 12 12 ANCHOA MITCHILLI MICFOPOGON UNDULAFUS AODITIONAL LARVAE EAUEFT	SAMPLING DEPTH C- 3M 6 6 49.4 31.4-63.5 TL 2 2 8.3 7.8- 8.8 SL GOBILDAE	0.4

CRUISE DATE C65 4 1965 STA. D.M. SPECIES ANALYZED J 2 12 12 BREVOORTIA TY FANNUS PARALICHTHYS CENTATIS SCOEHTHALMUS AQUOSUS A ODITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-3M 1 t 17.4 TL 1 1 8.6 SL 0 1 1 4.C SL	NO - PER 10M AFVAE EGGS 0 -1 0 -1 0 -0
J 3 12 12 BREVOORT I A TYRANNUS SCOPHTHAL PUS ADUOSUS	SAMPLING OEPTH 0-6M 5 5 16.5 13.7-18.9 TL 1 1 2.6 SL	0 .6 0 .1
J 4 12 12 BREWOOR TIA TYPANNUS URCFHYCIS SP. PARALICHTHYS DENTATUS SCCENTHALMUS AQUOSUS	SAMPLING CEPTH 0-6M 1 1 10.1 5 5 6.5 4.5- 7.9 NL 12 12 5.4 4.1- 7.3 SL 0 3 3 4.3 3.4- 5.2 SL	0.1 0.6 1.5 0.0
J 5 12 12 BREWOORTIA TY FANNUS MERLUCCIUS BILINEAR IS RARALICHTHYS CENTATUS	SAMPLING DEPTH C-15M 2 2 15.7 15.6-15.8 TL 1 1 6.8 NL 0 1 1 5.6 SL 0	0.6 0.3 0.0 0.3 0.0
J 6 12 12 UFCFHYCIS SP. MERLUCCIUS SILINEARIS	SAMPLING OEPTH C-15M	0.3 0.3 C.C
J 7 11 12	SAMPLING DEPTH 0-15M SAMPLING OEPTH 18-23M	
K 1 12 12 SCOPHTHALMUS AQUOSUS A OOIT TONAL LARVAE CAUCHT	SAMPLINC CEPTH 0- 3M 3 3.0 2.7- 3.5 St	0.2
K Z 12 12	SAMPLING DEPTH C- 6M	
K 3 13 12 BREVDORTIA TYFANNUS MICROPOGON UNDULATUS PARALICHTHYS CENTATUS SCOPHTHALMUS AQUOSUS ACOIT TONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M  1 15.1 TL  1 1 4.9 SL  27 27 4.5 3.4- 8.5 SL 0  8 8 3.0 2.7- 3.6 SL  UNIDENTIFIED	0.3 0.3 8.2 2.4
K 4 13 12 B FEVORTIA TY FANNUS UROPHYCIS SP. ETRCPUS M ICROSTOMUS PARALICHTHYS DENTATUS S COFHTHALMUS AUUDSUS	SAMPLING DEPTH 0-15 M	2.7 6.9 0.6 4.0 0.0
K 5 13 12  R RE VOOR TI A TYFANNUS  FAGFAULTS EURYSTOLE  SYMPOLOPHERUS VERANYI  UFOPHYCIS SP.  MICFEPEGRA UNGULATUS  PARALICHTHYS DENTATUS  ADDIT YONAL LARVAE CAUGHT		1.0 1.0 0.3 2.4 0.5 2.3
P 6 13 12 LCFHIUS AMERICANUS HROPPHYCIS SP. MERLUCCIUS BILINFARIS PARALICHTHYS CENTATUS	SAMPLING DEPTH 0-15M SAMPLING CEPTH 18-33M  1 1 3.0 TL  2 2 7.4 6.0-8.9 NL 0 2 2 7.5 6.3-8.8 NL 0 6 6 7.3 6.5-8.9 SL 0 3 3 8.6 7.9-5.3 SL 0	0.3 2.0 1.3 0.C 2.8 0.0
K 7 13 12 PARM ICHTHYS DENTATES	SAMPLING DEPTH 0-15M SAMPLING DEPTH 18-33M O 1 1 5.6 SL 0	0.3 C.C
E 1 13 12  ELCES SAURUS  R PE VOOP TLA TY PANNUS  L ELOSTOMUS XANTHUMUS  MICECPOGON UN OULATUS  PAR ALICHTHYS DENTAITS  SCOFFITHAL MUS AQUIDSUS  A OULTIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-6M  1	0.1 0.1 0.1 0.1 0.1 0.1

TABLE 3. (continued)	43		
CRUISE DATE  665 4 1965  CTA, D.M. SPECIES ANALYZED  L. Z. 13 12  UPC FHYCIS SP.  LEICSTOMUS YANTHULS  PRALICET HYS CENTATUS  COPHTHAL MUS AQUIDNUS	NUMBER LENGTHS (MM) NO. TOTAL MIAS. MEAN RANCE MEAS. EGGS SAMPLING OFFTH 0-6N  1 1 3.2 NL 3 3 11.5 11.5-11.6 SL 44 44 4.7 3.0-12.5 SL 0 1 3.1 SL	**************************************	MO. PER 10M LAFVAE EGGS 0.1 0.4 5.3 0.0
L 3 13 12  FEORS SAURUS  RREVOORTIA TYRANNIS  FINGRAULIS EURYSTOLE  UPCEFHYCIS SP.  LEICSTOMUS XANTHURUS  MICHOPORON UNQULATUS  CITYARICHTHYS ARCITERONS  PARALICHTHYS CENTATUS  SCOFHTHALMUS AQUINUS  ACOLTIONAL LERVAE CAUCHT	SAMPLING OEPTH 0-15M  1	SAMPLING DEPTH 1E-24M  1 1 33.2 7 7 12.5 9 .1-15.9 TL 3 3 24.4 23.1-25.9 TL 17 8 6.6 4.8- 8.2 NL 2 2 6.1 2.8- 9.4 SL 20 20 6.7 4.9- 6.4 SL 36 36 6.7 4.4-12.1 SL  O  SYNODONTICAE GOBIICAE UNIDENTIFIEC	0.2 1.5 0.5 4.3 0.6 3.8 0.3 7.0 0.3
L 4   14   12  UROFHYCIS SP.  MERLUCCTUS BILINFARIS  LFICSTCMUS XANTHUHUS  FIRMOUS MICROSTOMUS  PARALICHT HYS CENTATUS  ADDITIONAL LARVAE CAUGHT	SA MPLI NG DEP TH	SAMPLING OEPT H 18-33M  1 1 4.5 NL O 1 1 5.3 SL  O  PARALEPIOIDAE G0811CAE	0.9 0.3 C.C 0.3 0.3 0.3
L 5 14 12 LFICST CMUS XANTHURUS PAR FLICHTHYS DENTATLS ADDITIONAL LARVAE CAUGHT	SAMPLING CEPTH 0-15M 1 1 3.9 SL 1	SAMPLING DEPTH 1E-33M  SYNOCONTICAE	0.3
M 1 14 12  BREVOORTIA TYRANNUS  MICEOPOGON UNCULATUS  PARALICHTHYS DENTATUS  SCCENTHALMUS JOUIOSUS  A DOITINAL LARVAE CAUGHT	SAMPLING DEPTH 0-3M 18 18 18.4 12.3-21.3 TL 2 2 8.4 8.0-8.9 SL 5 5 8.2 3.4-12.0 SL 5 5 2.9 2.7-3.2 SL SPARIDAE		1 · 1 0 · 1 0 · 3 0 · 3
M 2 14 12 PREVOORTIA TYPANNIS LFICSTOMUS XANTHUHUS MICROPHOSH UNDULATUS PARALICHTHYS FENTATUS SCORHTHALMUS AQUOSUS ACOIT IONAL LARVAE CAUGHT	SAMPLINC DEPTH 0- 9M 79 36 14.2 10.1-18.4 TL 2 2 9.2 9.2-5.3 SL 5 5 8.7 7.3-11.1 SL 15 13 3.4 2.9-4.1 SL 9 R 3.3 2.8-4.5 SL SPARIOAE		14.4 0.4 0.9 2.7 1.6
	UNIOENTIFIED		54.8 1.2 6.4 0.9 1.5 20.9 2.7
M 4 14 12 BRE VOORTIA TY RANNUS ENGRAUL IS FUR YSTOLE UFCFHYCIS SP. LEICSTOMUS XANTHUMUS MICFOPOGON UN OULATUS BETHUS CCELLATUS ETROUS MICRO STOMUS PARALICHTHYS CENTATUS SCCPHTHALMUS ADUOSUS ACOLT TONAL LARVAE CAUGHT	SAMPLING DEP TH 0-15M 5 5 12.8 9.5-14.2 TL 1 12.1 TL 9 5 5.3 3.2- 5.7 NL 2 2 4.1 4.0- 4.3 SL 1 4 4 6.6 4.6-10.8 SL 2	SAMPLING CEPTH 18-24M 1 1 11.9 1 1 12.3 1 1 12.3 1 1 12.3 1 1 12.3 1 1 1 5.9 3.7-7.0 SL 1 1 4.7 SL 31 31 6.5 3.6-10.9 SL 0 1 1 4.5 SYNGOCNI ICAE OPHIOIIOAE CARAPIDAE SPARIDAE UNIDENTIFIEO	1.7 0.5 2.9 6.3 1.8 0.3 0.2 6.2 0.2

TABLE 3. (continued)	44	
CRUISE DATE 165 4 1965 STA. 0 M SPECIES ANALYZEC 15 14 12	NUM EER LENGTHS (MM1 ND. NUMBER LENGTHS (MM1 ND. TOTAL MEAS. MEAN PANCE MEAS. EGGS SAMPLING DEPTH 0-15M LENGTHS (MM1 ND. TOTAL MEAS. MEAN PANCE MEAS. EGGS SAMPLING CEPTH 18-33M 2 2 26.0 20.5-31.5 TL	NO, PER IOM LAFVAE EGGS 0.7
OFMICHTHUS GOMES! OPHICHTHUS OCELLATUS RREVOORTIA TYPANNUS ETELMEUS SADI MA ENGFAULIS EURYSTDIE	2 2 1.5 18.5-24.5 TL 57 22 7.5 3.5-10.3 TL 4 4 5.7 7.8-11.5 TL 7 7 11.1 8.1-13.8 TL 4 4 11.5 10.6-14.0 TL 5 5 4.3 3.7-5.4 TL 1 7.7 TL	0.7 19.0 3.4 1.8
RENTHOSEMA SUPPRBITALE CERATOSCOPELLS MADERENSIS CERATOSCOPELUS MAMMINCI DIA PHUS SP.	2 2 5.3 4.7- 5.9 SL 1 1 8.8 SL 3 3 4.7 4.4- 5.2 SL 3 3 6.4 7.2-IC.3 SL	0.7 0.3 1.0 1.0
LAMFANY CTUS ALATUS OR PHOTONOTUS LAMFANYCTUS ATER MYCTOPHUM SP.	7 7 4.6 3.5- 6.6 SL I 1 5.4 SL I 1 7.3 SL	2.3 0.3 0.3
MYCTOPHIM AFFINE FNCHELYOPLS CIMBRAUS UFOCFYCIS SP. UFORHYCIS FLOPIDANUS	I 1 4.6 SL 3 3 2.2 1.8~ 2.5 SL 0 93 23 3.1 1.7~ 7.7 NL 9 9 3.8 2.7~ 4.9 NL 3 2 3.5 3.0~ 4.1 NL	0.3 1.0 0.0 21.0 1.0
HEMANTHIAS VIVANUS LETISTOMUS XANTHUHUS MICEOPOGON UNDULATUS PEPFILUS TRIA (ANTHI)S PRICNOTUS CARCINUS	2 2 4.5 4.0- 5.0 SL 431 7R 4.1 2.4- 7.5 SL 83 82 4.4 2.8- 6.6 SL 72 70 3.7 2.4- 5.7 SL 27 27 4.C 2.9- 6.1 SL 1 1 3.4 SL 3 3 4.0 3.4- 4.7 SL 6 6 5.2 4.0- 6.0 SL 3 3 6.6 6.3- 6.9 SL	C.7 157.0 30.6 1.3 2.8
ROT HJS OCELLATUS FTERPUS MICROSTOMUS PARALICHTHYS DENTATUS SYACIUM PAPILLOSUM	62 25 4.6 2.7- 7.9 St 7 7 7.9 4.6-17.3 St 58 58 4.0 2.1- 5.7 St 25 25 3.7 2.1- 6.6 St 2 2 3.1 3.0- 3.2 St 0 5 5 4.2 3.4- 5.7 St 0 2 2 6.8 6.6- 7.0 St 0	20.9 25.7 2.3 0.7
SYMPHUPUS SP. A DOIT IONAL LARVAE CAUGHT	1D 10 6.3 3.9-9.6 SL 6 6.5 C. 4.7-13.2 St  DPHICHTHIDAE STOMIATIONE SYNCDONTICHE SYNCDONTICHE SYNCDONTICHE SYNCDONTICHE SYNCDONTICHE WCTOPHILAE BREGMACERCTIONE BREGMACERCTIONE CARAPICAE CARAPICAE CARANICHE COBILDAE COBILDAE COBILDAE CONTROL CALLIONYMICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CONTROL CALLIONYMICHE CALLIONYMICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CONTROL CALLIONYMICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CORPAENICHE CONTROL CALLIONYMICHE CORPAENICHE COR	5.0
N 1 15 12  RREVDORTIA TYRANNUS LAMEANYCTUS ALATUN OR PHOTONOTUS LAMEANYCTUS A FR UFFCFHYCIS SP. HEMANTHIA C VI VANUN LEICSTOMUS XANTHURUS MICSTOPROGN UNTULATUS PERMILUS TRIACANTHUS PRICHOTUS CAPELINUS RCT HIS OCELLATUS FIREPUS MICROSTOMUS PARA ICHT HYS CENTATUS SYMPHURUS S. ACDIT INNAL LARVAE CAUGHT	SAMPLINC CEPTH 0-6M 5 5 15.3 12.5-19.0 TL 1 1 4.2 SL 1 1 3.8 SL 4 3 2.8 2.4- 3.2 NL 1 1 3.6 SL 47 45 4.8 2.8- 7.8 SL 15 15 4.0 2.8- 5.8 SL 3 3 3.8 3.5- 4.5 SL 2 2 6.8 5.5- 8.2 SL 1 1 3.7 SL 5 5 4.3 2.4- 5.9 SL 5 5 3.4 3.1- 3.7 SL 8 5 5 3.3 2.8- 3.9 SL 2 2 4.2 3.6- 4.8 SL	C.6 0.1 0.1 0.5 0.1 5.7 1.8 0.4 0.2 0.1 0.6 0.6 0.6 0.2

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CRUISE DATE 165 4 1965 STA. D M SPECIES ANALYZEO N 2 15 12 REVOORTIA TYPANNUS ENGRAULIS EURYSTONE UPOPHYCIS SP. LEIISTOMUS XANTHURUS MICPOPOGON UN OULATUS PPI(NOTUS CARCLINUS RETHUS OCELLATUS ETRCPUS MICROSTOMUS PARALICHTHYS TENTATUS SCOPHTHALMUS AQUOSUS SYMPHURUS SP. ADOIT IDNAN LARVAE CAUGHT	NUMBER LENGTHS [MM] NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15 M  206 & 1 6.2 2.9-15.2 TL 5 5 4.9 4.2-5.5 TL 19 14 6.C 2.2-15.7 NL 83 E3 4.7 3.0-9.4 SL 66 65 4.8 2.8-10.6 SL 6 6 5.4 3.7-7.5 SL 4 4 8.4 4.2-18.5 SL 3 3 7.8 6.4-10.3 SL 44 43 4.7 3.0-10.0 SL 1 6 6 3.8 2.5-5.2 SL 1 1 12.4	NO. PER 10M LARVAE EGGS 62.4 1.5 5.8 25.1 20.0 1.8 1.2 0.9 13.3 0.3
B REVOOR TI A TYRANNUS ENGRAUL IS EUP YSTOLE CERATOSCOPELUS MADE FENSIS CERATOSCOPELUS WAHM INGI DIA PHUS SP. UPOPHYCIS SP. LIICSTOMUS XANTHUKUS MICROPOGON UNDULATUS PEPRILUS TRIACANTHUS PPICNOTUS CARCLINUS RCTHIS OCELLATUS ETF (PUS MICROSTOMIS PAR ALICHTRYS DENTATIS SCCPHTHALMIS AQUOSUS SYMPHURUS SP. ADDIT TONAL LARVAE CAUGHT	GEMPYLICAE UNIDENTIFIED	3.0 0.6 0.3 0.3 0.3 2.1 17.0 7.0 0.3 2.1 0.9 2.4 1.8 C. 6 0.6

CRUISE DATE D65 4 1965 STA. O.M. SPECIES ANALYZED N.4 15 12	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANCE MEAS. EGES SAMPLING OFFTH 0-15M	*********** LARVAE ************************************	ND • PER 1DM LARVAE EGGS
AHLIA EGMONTIS  OPHICHTHIS MELANOPORUS  OPHICHTHIS OCCLLAFUS  RELYOR TI A TYRANNUS  FTRUMEUS SADINA  FNORAULIS EURYSTOKE  CFRATOSCOPPLUS WARMINGI  LAWIANYCTUS ALATUS OR PHOTONOTUS  UROPHYCIS SP.  SERFANIDAE  HEMANTHIA & VI VANUS  LEICSTOMUS XANTHUBUS  MICFORDON UNEULATUS  PFICHOTUS CARCLINUS  BCTHUS OCCLLATUS  BCTHUS OCCLLATUS	7 3 3.3 2.6-3.7 NL 2 2 3.0 2.8-3.2 SL 39 39 3.6 2.5-7.6 SL 41 40 3.2 2.5-4.4 SL	1 1 33.5 21 21 9.1 5.0-11.7 TL 2 2 10.2 9.5-10.9 TL 4 4 2C.4 18.6-22.1 TL 1 1 5.0 SL 1 1 6.3 SL 69 18 4.1 3.1- 5.3 NL  3 2 3.1 2.4- 3.7 SL 208 201 4.5 2.7- 8.0 SL 133 132 2.8 2.5- 8.6 SL 3 2 2.6 3.2- 4.1 SL 24 24 5.5 3.7- 8.9 SL	0.3 0.3 1.5 17.8 2.2 1.6 0.9 0.3 25.1 0.0 1.6 61.0 56.6
FTF(PUS MICROSTOMUS PARZEICHTHYS CENTATES SCORHTHALMUS AQUINUS	12 12 6.C 4.7- 7.6 SL 5 5 4.3 3.8- 4.8 SL 5	158 25 4.9 2.9- 9.4 SL 4 4 4.8 3.2- 7.3 SL 0 2 1 4.2 SL	56.3 2.8 0.7
SYMEHIPUS SP.  AERIT IONAL LARVAE CAUGHT	PAPALEFICICAE LOPHIIFCFMES  BREGMACEROTICAE  OPHIDITOAE SYNGNATHICAE SERRANICAE CARANGICAE SPARIDAE LABRIDAE OR SCARIDAE GOBIIDAE SC CRPAENIC FE TRIGLICAE	SYNDDONTICAE  BREGMACEROTICAE  DPHICIIDAE  SPARIDAE  MUGILIDAE  CALLIDNYMIDAE  GOBIICAE  STRUMATEICAE  UNIOENTIFIED	D.3 0.7
	UNIDENTIFIED		
A 5 IS 12  RREVIOR TIA TYRANNUS  FTREMEUS SADINA  ENGRAPLIS EURYSTONE  LIMFANYCTUS ALATUS DR PHD TONDTUS  UPD PHYCIS SP.  SERRAN IDAE  I EICST MUS XANTHUNUS  MIC ROPOGON UNDULATUS  PEPELUS TRIACANTHUS  PEICNOTUS CARCLINUS  ROTHUS DIELLATUS  CYCLEPSETTA FIMBRIATA  FTREPUS MICRO STOMUS  PARALICHT MYS EENTATUS  SCENTHALMUS ADUNSUS  SYACIJM PAPILLOSUM  SYMEMURUS SP.  ADDITIONAL LARVAE CAUGHT	231 26 3.7 1.9- 6.9 NL  206 1C9 4.7 2.8- 9.5 SL  14 12 3.9 2.5- 5.4 SL  5 5 3.9 2.9- 4.5 SL  10 10 3.9 2.7- 5.5 SL  5 5 3.5 2.5- 5.1 SL  1 1 6.1 SL  50 48 5.2 3.1-10.0 SL  12 12 3.5 2.9- 5.2 SL  CPHICHTHIEAE SYNGNATHIEAE SYNGNATHIEAE SPARIDAE SPARIDAE MUGILICAE CALLICNYMITAE GOBIIDAE	1 1 4.9 SL 1 1 8.2 SL 1 1 8.2 SL 1 1 3.5 SL VINCIGUERRIA SP. STOMIATICAE SYNDODNITIDAE PARALEPIDIDAE BREGMACE ROTICAE OPHIDIEDAE SERRANIDAE CARANGIDAE SPARIDAE LABRICAE LABRICAE LABRICAE DR SCARIDAE	67.9 1.0 2.6 0.7 88.6 0.0 58.1 20.9 1.8 3.3 2.5 0.3 54.0 7.3 0.3 0.3
	ACANTHURICAE STRCMATELICAE SCORPAENICAE UNIDENTIFIED	CALLEDNYMIDAE GCBIICAE TRICHTURITAE STROMATEICAE SCORPAENIDAE UNIDENTIFIED	
P 1 15 L2 MIC FORDGON UNDULATUS PARTI I CHT HYS EENTATUS SCOPH THAL MUS ADUONUS ADDIT IDNAI LARVAE CAUGH	SAMPLING DEPTH 0- 3M 1 1 8.4 SL 5 1 1 3.D SL SPARIDAE EALLIONYMICAE		0.1 0.0 0.1

CRUISE DATE  C65 4 1965  ST4. D M SPECIES ANALYZED  P 2 15 12  ANCIDA FERSETUS  LETICSTOMUS XANTHUNUS  MICEOPOGON UNDULATUS  RITHUS CEFLLATUS  SCOPHTHALMUS AQUOSUS  ACOIT IDNAL LARVAE (AUGHT	SPARIDAE UNIDENTIFIED	NUMBER LENGTHS (MM) NO. NO. PER LOM TOTAL MEAS. MEAN RANGE MEAS. EGGS LAFVAE EG  O.I O.I C.5 O.I 0.2	SGS
P 3 15 12 FLCES SAURUS OPHICH THUS METANOPOFUS FAGRAJES EURYSTOLF LAMFANYCTUS ALATUS (P PHOTONCTUS M YCTOPHUM AFFINE USCEPYCES SP. HEMANTHIAS VIVANUS LETCSTOMUS XANTHUNUS MICFOPOGON UNDULATUS PPICNOTUS CAPRINIS ACTHUS OCELLATUS FIREPUS MICROSTOMUS PARTLICHTYS ENTATES SCOPHTHALMUS ADUOSUS SYMPHURUS SP. ACOITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15 H 2 2 28.9 28.8-29.1 NL 1 1 30.2 NL 2 1 29.1 TL 1 1 4.4 2 2 5.6 5.3-5.9 NL 2 2 3.4 3.3-3.5 SL 21 21 7.2 4.2-9.5 SL 2 2 5.3 5.1-5.6 SL 2 2 5.3 5.1-5.6 SL 2 2 5.3 4.9-5.8 SL 3 3 9.2 4.7-17.3 SL 6 6 6.0 4.0-9.0 SL 1 1 5.6 39 36 3.2 2.5-4.8 SL 2 2 8.9 5.7-12.1 SL	11.8	?
P 4 15 12  OFF ICHTHIS OCELLATUS  BEFOORTH TO TYPANNIS  ETRUMEUS SADINA  CERATOSCOPPLUS WAHMINGT  I AMPANYCTS SP.  LEICSTOMUS XANTHURUS  MIEPPOGGON UNDULATUS  PEPFILUS TRIACANTHUS  PPINOTUS CARCLINIS  BOTHUS OCELLATUS  FIRERUS MICROSTOMIS  PARALICHTYS CENTATUS  SYMPHURUS SP.  ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M  I 1 20.3 TL  8 8 9.2 7.7-12.0 TL  1 1 13.1 TL  2 2 5.7 5.3-6.1 SL  2 2 4.2 4.1-4.3 SL  34 11 3.5 2.5-5.6 NL  322 102 4.2 3.0-7.5 SL  76 75 3.8 3.0-7.5 SL  1 1 3.4 SL  15 15 6.0 4.8-7.0 SL  15 15 4.6 3.0-7.5 SL  2 2 3.5 3.2-3.6 SL  2 2 6.0 4.1-7.6 SL	SAMPLING CEPTH 18-23M  2 2 <.2 8.3-1 C.1 TL	1.5

NO. EGGS

						+0
PULSE DATE	*****		* LARV	/AF ***		****
65 4 1965	NUM	BER	1.5	NGTHS	IMP)	
STA. D M SPECIES ANALYZED	TOTAL P	EES.	MEAN	RANG	Ē M	EAS.
9 5 15 12	SAMPLI	NG OF	ртн с	-15M		_
PPENCARTIA TYPANNIS	3	3	9.5	8. 7- I	0.7	TL.
MYC 10PHID AF						-
CERATOSCOPELUS MADERENSIS	2	2	10.2	9.8-10	0.6	NL.
CERATOSCOPELUS WARM INCI	50	20	4.0	2.9-	6.1	SL
DIAPHUS SP.	6	6	4.8	3.7-	7.1	S L
HYGERHUM TANNINGI						
LAMPANYCTUS ATATUS ER PHOTONOTUS	8	8	3.8	3.4-	4.3	SL
LAMFANY CTUS ATER						-
MYC TOPHUM SP.						
NOTESCOPELUS P.						
HEMANTHIAS VIVANUS						
PLECTRANTHIAS SARKUPELLUS	1	1	3.6			SL
L FICSTOMUS XANTHUKUS	8		3.4			SL
MIC FORDGON UNEULATUS	Ť	ĩ	3.4			SL
PEPRILLS TRIACANTHUS	-	-				•
PETENDIUS CAPELINUS						
BICTHUS INCELLIATUS	5	5	4.5	3.7-	5.7	SI
SYACIJM PAPILLOSUM	1		10.7			SL
SYMEHURUS SP.	ī	-	3.9			SL
A DO IT IDNAT LARVAE CAUGHT	MURAENI					3.0
	CYCLOTE		. P .			
	STEMEAT					
	SYNODON		:			
	MICTOR		-			

1 1 3.9
MURAENICAF
CYCLOTICNE SP.
STOMEATICAE
SYNODON TID AE
MY CT OP FILAE
SEPPANICAE
CAR ANG 1 LAE
SPARIDAE
LABRIDAE DR SCARIDAE
MUGILICAE
CALLIONYMICAE
GP 81 10 A E
AC ANTHUPIC 4E
GEMP YL 1 0 AE
SCORPAEN ICAE
BALISTIC #E
TETR AD CONTIQUE
UNIDENTIFIED

****	****	≠ LARV	ΔE ***	****	****			2
NUME	BER	LE	NGTHS	( MM )		NO.	NO. PER	
TOTAL M	IEAS.	MEAN	PANG	E N	ME AS .	EGGS	L # PV #E	EGGS
SAMPLIN	IG DE	PTH 1	8- 23M					
							0.1	
2	2	4.6	4.2-	5.0	SL		0.7	
							0.7	
2	2	3.8	3.2-	4.5	SL		16.7	
2	2	6.5	6 .2-	6.8	SL		2.5	
1	1	5.0			SL		0.3	
12	12	2.7	2.9-	4.5	SL		6.4	
I	1	5.7			SL		0.3	
1	1	5.2			SŁ		0.3	
6	6	4.7	4.4-	5.5	SL		2.0	
1	1	3.6			SL		0.3	
							0.3	
							2.7	
							0.3	
3	3	2.5	2.7-	3.3	SL		1.0	
1	1	5.2			SL		0.3	
1	1	4.C			SL		8.1	
I	I	3.7			SL		0.6	
							0.3	

MURAENIDAE
OPHICHTHIDAE
SYNDODNTICAE
PARALEPIOTCAE
LOPHIIFORMES
SERRANIDAE
GRAMMISTIDAE
CORYPHAENIDAE
CHAETODONTICAE
LABRIDAE OR SCARIDAE
MUGILIDAE
STROMATELDAE
UNI DENTIFIEC

CPUISE DATE CCG I 1966 STA. D.M. SPECIES ANALYZED		NO.	NUMBER LENGTHS IMM ) IDTAL MEAS. MEAN PANGE MEAS.		NO. PER 1 LAFVAE	2 0 P 6 G G S
A 1 24 CI CTUTEA HAPENGUS HAR ENGUS GAOLS MORHUA AMMENYTES SP. ACOLT INNAL LAPVAE CAUCHT	SAMPLINC DEPTH 0-6M 2 2 36.5 36.1-36.9 TL 7 7 10.3 6.7-16.2 SL 5C 5C 8.9 5.5-20.8 TL OPHIDIICAE RHCLIDAE COTTIDAE	5			0.2 0.8 6.1	0.6
A 2 26 01 CLUSEA HAPENGUS HARENGUS GACLS MORHUA PCLLACHIUS VIPENS APMOVIES SP. SCCENTHALMUS ACUDSUS LIMANDA FERRUCINEA AODITIONAL LARVAE CAUGHT	SAMPLING DEP TH 0-15 M 7 6 25.4 24.5-41.5 TL 3 3 8.2 5.9- 9.6 SL 5 4 11.9 6.9-15.7 SL 27 27 10.6 6.3-23.2 TL 1 1 27.0 SL 1 1 57.6 SL PHICLIDAE UNIDENTIFIED	3 0			2 •1 0 • 9 1 • 5 8 • 2 0 • 3 0 • 3	0.9
R T 26 OT CADIS MORHUA ARMENYTES SP. ADDITIONAL LARVAE CAUCHT	SAMPLING CEPTH 0-15M  2 2 6.6 5.6- 7.6 TL FHCLIDAE COTIDAE	1			c.o	C. 3
R 2 76 01 C/CLS MORHUA A DOLTIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M  CPHIDITIFE PHOLIDAE COTTIONE	1			0.0	0.3
P 3 26 OL CLUPFA HARENGLS HARENGUS FNCHELYOPUS CIMBRIUS GAOLS MORHJA PILLACHTUS VIRENS ARMENYTES SP. ADDITIONAL LARVAF CAUGHT	SAMPLINC DEP TH C-15M 4 3 28.0 25.4-21.1 YL 1 1 11.5 SL 22 22 9.1 5.8-14.5 YL CPHIDIIIE/E PHOLIDAE	0 2 0	SAMPLING DEPTH 18-33M  1 1 6.2 SL  OPHIDIIDAE	0 0	1.3 0.3 0.0 0.3 7.3	C. C O. 7 O. 0
P 4 24 01 CLUFFA HAPENGUS HAPENGUS GAOLS MARHUA PCLIACHIUS VIPENS APVIDYTES SP. ADDITIONAL LARVAE CAUGHT	SAMPLING CEPTH C-15M 1 1 27.0 TL 2 2 4.9 4.4- 5.3 SL I 1 11.P TL	0	SAMPLING CEPTH 18-33M 4 4 25.1 29.9-29.6 TL 2 2 5.2 5.2 5.2 SL 1 1 3.3 SL 12 13 1C.3 5.5-14.6 TL SYNGNATHICAE	0	1.6 1.3 0.3 4.6	0.0 c. c
P = 76 CL Clufea Harengus Hap Engis PCLIAC 41US VI FENS AMMODYTES SP.	SAMPLING DEPTH 0-15M 1 1 23.7 TL 2 2 9.0 9.5- 9.4 SL 37 36 11.5 7.3-16.3 TL		SAMPLING OEPTH 18-23M 3 3 28-5 26-6-30-6 TL 3 3 1C-1 8-2-11-6 SL 25 23 11-5 6-9-15-2 TL	0	1.3 1.6 19.4	0.0
P 6 25 0] CLUPEA HARENGES HOPENGUS CIPLS MARMIA POLIACHIUS VIENS AMMONTES SP. PIRELOHTHYS CENTATES	SAMPLING DEPTH 0-15M 6 6 26.9 24.3-30.1 TL 22 22 6.5 4.3-9.5 SL 237 57 10.4 6.5-17.5 TL	0	SAMPLING DEPTH 18-33M 8	0 0	4.5 3.3 18.9 (86.7 0.3	c. c o. o
P 7 25 DI C1UFEA HARENGES HARENGUS CACES MARHIA VELANDGRAMUS AEGLEFINUS PCLEACHIUS VIPENS AAMONTES SP. ADOLTIONAL LARVAE CAUGHT		0 1 0	SAMPLING CEPTH 18-33 M  3	0 0 0	0.3 1.9 0.7 6.8 27.7	0.C 0.3 C.C
C 1 C2 O2 COCENTHAL MIS ADDITSUS COLLTIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 1 1 33.0 SL COTTIDAE				C.3	
	SAMPLING REP TH C-15M 1 1 34.2 SL	0			0 • 3 0 • 0	0.0

CRUISE DATE D66 1 1965 STA. D M SPECIES ANALYZED C 3 C2 C2 ADDITIONAL LARVAE CAUGHT	NUMBER LENGTHS (MM) ND. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH D-15M	NUMBER LENGTHS (MM) ND. TOTAL MEAS. MEAN FANGE MEAS. EGGS SAMPLING DEPTH 1E-24M OPHICIIDAE PHOLIDAE	NO. PEP 10F LARVAF EGGS
C 4 C3 D2 GADES MORHUA MELANDGRAMMUS AEGIFFINUS PICLACHIUS VIFENS ADDITIONAL LARVAE CAUGHT	SAMPLINC DEP TH C-15M 2 2 5.2 3.8-6.5 SL 0 1 1 5.7 SL 0  FHCLIDAE	SAMPLING CEPTH 18-24M  3 0 1 1 7.C St O UNIDENTIFIEC	0.6 0.5 0.3 c.c 0.2 0.0
C 5 (3 02 CLUFEA HARENGUS HARENGUS ENCHELYOPES CIMBRIUS GACES MORHIA PILLACHIUS VIFENS APMENYTES SP. ACDITIONAL LARVAE CAUGHT	SAMPLINE DEPTH 0-15M  1	SAMPLING DEPTH 1E-23M  1 1 E.7 SL 0 5 5 5.5 4.1-6.5 SL 0 9 8 8.2 4.9-11.0 SL 0  PHDLIDAE UNIDENTIFIED	0.3 0.6 0.0 3.2 C.3 3.0 0.0
C 6 04 02 GACES MORENA PELLACHIUS VIFENS ABDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 6 6 5.6 4.6-7.7 SL 0 3 3 7.2 4.4- 8.9 SL 0 ANGUILLA FCSTRATA	SAMPLING DEPTH 18-33M 4 4 6.2 4.9- 8.4 SL 0 0 ANGUILLA POSTRATA PHOLICAE	3.1 C. C
C 7 C4 02 GADLS MARHUA PELLACHUS VIPENS AMMERYTES SP. ADDITIONAL LARVAE CAUCHT	SAMPLINC DEPTH 0-15 M 3 3 6.1 4.2- 7.2 SL 0 4 4 14.4 12.3-17.4 TL ANGUILLE FCSTRATE	S AMPLING CEPTH 18-33M 3 3 7.7 7.0- 9.0 SL 0 13 13 7.9 4.6-13.7 SL 0 6 6 12.9 10.0-17.0 TL	1.9 0.0 4.3 0.0 3.2
C 8 D4 12 AMMICRYTES SP. ACDIT FON ALL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 4 4 13.8 12.9-15.3 TL	SAMPLING DEFTH 18-23M	1.3
C 1 C4 02 P(LEACHIUS VIRENS AMMODYTES SP. ADDITIONAL LARVAF CAUCHT	SAMPLING DEPTH C- 6M 3		0.4 0.0 C.5
E 2 C4 O2 GADLS MORHUA PELLACHIUS VIRENS ABDIT [ONAL LARVAE CAUCHT	SAMPLING DEP TH C- 6M  1 1 6-2 St 0  1 1 9-6 St 0  COTTIONS		0.1 0.0 C.1 C.C
F 3 C4 D2  SADIE MORHUA  PELLACHIUS VIPENS  ANYENYTES SP.  4 COLTIONAL LARVAE CAUCHT	SAMPLINC DEPTH C-15M 2 2 5.2 5.1- 5.2 St 5 1 1 10.5 St 0 1 1 13.0 TL  FHOLIOAE		0.6 1.5 0.3 C.C
D 4 C4 D2 GADIS MORHUA PILLACHIUS VIRENS AMMICOYTES SP.	SAMPLINC DEPTH 0-15M 3 3 5.2 4.3-5.8 St 0 1 1 10.0 St 0 1 1 12.2 TL		0.9 0.C 0.3 0.C 0.3
D 5 (4 02 CACLS MOPHUA PELLACHTUS VIFENS AMMEDYTES SP. ACOIT ENAL LARVAE CAUGHT	SAMPLING CEPTH 0-15M 2 1 7.8 SL 0 1 1 21.2 TL ANGUILLA PESTRATA	SAMPLING DEPTH 18-24M 3 3 E.E 7.5- 5.7 SL 2 1 1 12.8 SL 0 1 1 2C.C TL PHOLIDAE	1.1 C.3 0.2 C.C
C 6 C4 O2 GADLS MORHUA AMMOYTES SO. ACDIT BONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 1 1 4.7 SL 0 19 19 14.4 12.0-17.8 Tt	S AMPLING CEPT	0.3
C 7 C4 O2 PCLIACHIUS VIFENS AMMODYTES SP. PARTIICHT FYS CENTATUS	SAMPLING DEPTH C-15M 3 3 8.0 6.6- 9.0 St 0 2 2 13.1 12.2-14.0 TL	SAMPLING CEPTH 18-33M 2 2 E.3 8.0- 8.5 SL 0 5 5 14.5 13.4-17.4 TL 1 1 5.5 SL 0	1.6 0.0 2.3 0.3 0.0

TABLE 3. (continued)	51			
CRUISE DATE D66 1 1966 STA. D M SPECIES ANALYZED D 8 C4 02	NUMBER LENGTHS (MM) TOTAL MEAS. MEAN RANGE MEAS. SAMPLING CEPTH 0-15M	ND.	TOTAL MEAS. MEAN RANGE MEAS. EGGS LAFVAE SAMPLING DEPTH IE-33M	
AMMIDYTES SP.  PARALICHTHYS CENTATES  ADDITIONAL LARVAE CAUGHT	2 2 16.6 15.5-17.8 TL	0	1 1 9.1 SL 0 0.3 UNIDENTIFIEC	
E 1 (5 02  ADDIT IDNAL LARVAE CAUGHT				
	COTTICAE			
F 2 C5 O2 A MMCDYTES SP.	SAMPLINC DEPTH 0- 6M 3 3 14.1 11.6-17.2 TL		0.4	
E 3 (5 02 GABUS MOPHJA APM (DY TES SP.	SAMPLINC DEPTH 0- 6M 2 2 9.1 7.2-10.9 SL 9 9 14.5 7.3-17.5 TL	0	0.2 1.1	
F 4 05 02 CLUPEA HARENGUS HARENGUS CAMUS MOPHUA ADMICHYTES SP. ADDITENNAL LARVAE CAUGHT	SAMPLINC DEP TH C-15M 1 1 32.0 TL 7 7 9.2 5.7-14.0 SL 1 1 19.0 TL PHOLIDAE	0	0.3 2.1 0.3	0.0
E 5 (5 02 CLU FEA HAPENGUS HAR ENGUS GADIS MORHUA PICLLACHIUS VIRENS ANMINYTES SP.	SAPPLING OFFTH 0-15M 1 1 23.2 TL 3 3 8.8 7.7-10.6 St 1 1 24.0 TL	1 9	SAMPLING DEPTH 1 = 24M  0 .3  0 1.0  1 1 4.1 St 0 0.2  0.3	0.3
ADDITIONAL LARVAE CAUGHT	PHDLIDAE CDTTIDAE UNIOENTIFIID		PHOLIDAE	
E 6 C5 O2 CLUFFA HARENGLS HARENGUS GAEUS MOPHUA SCOPHITHALMUS AQUONUS ADOLT IONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 1 1 26.9 TL 2 2 7.7 6.5- 8.9 St 1 1 9.2 St	0	SAMPLING DEFTH 19-24M 0 -3 0 0 -6 0 -3	0.0
F 7 (5 C2 PCLLACHIUS VIPENS AMMCDYTES SP.	SAMPLING DEPTH G-15M 1 1 10.C St 22 22 13.5 5.9-22.0 Tt	0	SAMPLING DEPTH 1E-23M 0 0.3	
F 9 (5 02 AMMCDYTES SP	SAMPLING CIPTH 0-15M 1 1 17-1 TL		SAMPLING DEPTH IF-33M	
F 2 (6 C2 AMMEDYTES SP. ADDITIONAL LARVAE CAUCHT	SAMPLING CEPTH 0- 6M 7 7 13.7 10.8-16.4 TE COTTIDAE		0.0	3
F 3		0	1.2 27. 0.3	3
F 4 (6 C2 CACLS MOPHIA AMMCDYTES SP.	SAMPLING CEPTH C-15M 1 1 9.7 SL 25 24 14.9 10.3-20.4 TL	0	0 al	3 C.C
F 5 (6 02 GADUS MORHJA IMM(DYTES SP. ADDITIONAL LARVAE CAUGHI	SAMPLING DEPTH 0-15M 2 2 9.2 7.7-10.7 SL 32 30 16.4 12.5-19.6 TL ANGUILLE FESTRATE PHOLIDAE	0	SAMPLING DEPTH 1 = 24M 7 7 10.7 8.5-15.0 SL 0 1. 84 47 16.9 12.6-21.8 TL 23.4 ANGUILLA ROSTRATA 8 RECMACEROTITAF PHOLIDAE UNIDENTIFIEC	
F 6 (5 02 PELLACHTUS VIFENS AMMEDYTES SP. AEDIT TONAL LARVAE CAUGHT	SAMPLING OEPTH C-15M 2 2 6.3 6.1- 6.4 SL 3 3 14.9 12.5-16.4 TL	0	SAMPLING CEPTH 18-33M  1 1 17.2 TL 1.2  ANGUILLA FOST PATA  GOBILDAE	
£7 ^5 0,7	SAMPLING DEPTH 0-15M		SAMPLING DEPTH 18-33M	

CRUISE DATE D66 1 1966	************* LAR VAE ****** NUMBER LENGTHS (MM		**********	ND. PER 10 M
STA. D M SPECIES ANALYZEO G 1 C6 02 CLUPPA HARENGUS HARENGUS	TOTAL MEAS. MEAN RANGE SAMPLINC CEPTH O- 6M 1 I 26.C	MEAS. EGGS	TOTAL MEAS. MEAN FANGE MEAS. EGGS	LARVAE EGGS
ANCHOA MITCHILLI POLLACHIUS VIRENS AFMCOYTES SP.	2 2 45.3 44.2-46.5	STE O		0.1 0.2 0.1 0.0
ADDITIONAL LARVAE CAUCHT	28 28 9.6 4.9-21.4 PHCLIDAE CDTTIDAE	, TL		3.4
		• • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
CACUS MORHJA AMMCDYTES SP.	SAMPLING OEPTH C- 6M 3 3 10.2 8.3-12.2 60 50 11.9 6.9-22.7	SL O		0.4 7.3
ADDIT TONAL LARVAE CAUGHT	COTTIDAE			
C 3 C6 02 CATLS MORPUA AMMODYTES SP.	SAMPLING DEPTH C-15 M	0		0.3 0.0
				10.0
G 4 C6 02 AMMODYTES SP. AODITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 14 13 15.7 12.2-18.9 PHOLIDAE	TL		4.2
• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
G 5 CK D2 GADLS MORHUA AMMCDYTES SP.	SAMPLING DEP TH C-15M	0	SAMPLING CEPTH [8-33M 1 0 12 12 11.8 9.6-18.0 TL	0.3 0.0
A DDIT IONAL LARVAE CAUGHT	FROCTORE			
C 6 C6 O? AMMENYTES SP.	SAMPLING DEPTH 0-15M		SAMPLING CEPTH 18-33M 1 1 16.5 TE	G.3
ADDIT (DNA) LARVAE CAUGHT	LABRIDAE OR SCARIDAE		SAMPLING CEPTH 18-33M 1 1 16.5 TL PHOLICAE	
F 1 C7 02 CLUFFA HAPENGUS HAR EN CUS	SAMPLENC DEPTH C- 3 M 1 1 44.3 15 15 10.9 5.6-18.6	TL		0.1
ACRIT DNA LARVAE CAUCHT	15 15 10.9 5.6-18.6 ANGUELLA PESTRATA			0.9
F 2 C7 G2 BREVCORTIA TYRANNIS	SAMPLING DEPTH C-6M			
GADLS MOPHUA UFFFYCIS SP. ANMOYTES SP.	2 2 21.1 19.4-22.5 1 1 7.4 1 1 7.6	2F 0		0.2 0.1 0.1
ANY COYTES SP. ADDITIONAL LARVAE CAUGHT	47 45 10.1 6.0-17.7 ANGUILLA RESTRATA COTTIONE	T T L		5.7
+ 3 (7.02	54401416 00070 0 44		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
RRE VOORTILA TY FANNUS GADUS MOPHUA AMMINYTES SP.	SAMPLINC DEPTH C= 6M 1 1 15.5 1 1 6.5	TL St 0		0.1 0.1 c.c
APPERTYTES SP. ADDITIONAL LARVAE CAUGHT	13 13 14.3 6.8-22.2 CCTTIDAE	TL		1.6
H 4 C6 02 AMMECYTES SP.	SAMPLING CEPTH 0-15M	<b>.</b> .		
ACDIT MNAL LARVAF CAUCHT	12 12 14.7 5.0-25.5 ANGUILLA FCSTRATA GOBILDAE	11		3.6
	UNEDENTIFIED			
F 5 C6 02 AMMINTES SP. PRICHATUS CAPOLINUS	SAMPLENG DEPTH 0-15 M		SAMPLING CEPTH 18-24M 3 3 16.9 15.5-18.6 TL	0.5
PARALICHTHYS CENTATUS  ADDITIONAL LARVAE CAUCHT	1 T.6 ANGUELLA FCSTRATA	SL 0	2 2 31.4 21.3-41.5 SL 0	0.3 0.3
н 6 (6 с2	SAMPLING DEPTH C-15M		SAMPLING DEPTH I8-33M	• • • • • • • •
UPDPHYCIS SP.	1 1 3.1	NŁ		0.3
H 7 (6 C2 PCLLACHTUS VIPENS	SAMPLENC DEPTH 0-15M	n	SAMPLING DEPTH 18-33M 1 I I3.I SL 0	0.3 0.0
A COLT IONAL LA RVAE CAUCHT			ANGUILLA FOSTRATA	
J 1 (7 02	SAMPLING OEPTH 0 6M			
J 2 C7 D2 A NC HOA MI TGH I LL I	SAMPLINC OEPTH C- 6M 1 1 59.5	ΤL		0.1
AMMIDYTES SP.	1 1 20.2	TL		0.1

TABLE 3. (continued)		53			
CRUISE DATE D66 1 1966 STA. D M SPECIES ANALYZED J 3 C7 D2 APMEDYTES SP.		NO. MEAS. EGCS	NUMBER LENGTHS (MMI TCTAL MEAS. MEAN RANGE N	NO.	NO. PER 1DM ARVAE EGGS
J 4 (7 02 AMMCDYTES SP.	SAMPLINC DEPTH 0-15M 1 1 19.0	TL			0.3
J 5 (7 C2 REEVOORTIE TY FANNIS AMMONYTES SP.	SAMPLING DEPTH 0-15M L 1 23.5 2 2 21.9 20.8-23.1				0.3
J 6 (7 02 AMMODYTES SP.	SAMPLING CEPTH D-15M 3 3 17.2 14.1-19.0	TL	SAMPLING DEPTH 1E-24M 2 2 12.1 5.E-1f.4	TL	1.3
J ? (7 C? ACDIT IONAL LAGVAF CAUCHT	SAMPLING DEPTH 0-15M		SAMPLING DEPTH 18-33M CARAFIDAE		
K I CO 02 RPENCARTIA TYFANNUS AMMODYTES SP.	SAMPLING OEPTH C-6M 3 3 16.9 9.5-25.4 1 1 6.6				0.4 0.1
K 2 (9 07 BREYDOPTIA TYRANNIS ANCHCA MITCHILLI AMMONYTES SP. SCEENTHALMUS ADUNSUS ADDITIONAL LARVAE CAUCHI	SAMPLING CIPTH D-15M 4 4 17.3 13.8-24.3 17 17 29.0 30.1-46.6 4 4 15.0 11.6-17.8 2 2 7.2 5.6-8.7 COBIDAE COTTIDAE	ΤL			1 .2 5 .2 1 .2 0 .6
K 3 C7 02  B RE VOOR TI A TY FANNIS  MIC FOROGON UNDULATES  AMMEDYTES SO.  ADDITIONAL LARVAE CAUCHT	1 1 48.0 3 19.7 16.7-24.0	TL SL TL			0.3 0.3 0.9
K 4 C7 D2 AMMCDYTES SP.	SAMPLING DEPTH 0-15M 4 4 22.0 14.0-27.8				1.2
K 5 C7 C2 FACHELYOPUS CIMBRIUS AMMONYTES SP. PRIODITUS CARGEINUS ADDITIONAL LARVAE CAUCHT	SAMPLIN( DEPTH  0-15M 6  6  19.7  16.8-21.5	D	SAMPLING DEPTH 10-24M 1 1 3.4 8 F 1E.E 13.5-29.5 1 1 30.4 GD81IDAE	St. 0	0.2 C.C 3.1 0.2
K 6 (7 0? OFHICHTHUS COELLATUS OFHICHTHUS COELLATUS OFFECODRITE TYPANNIS FINGPAULIS EURYSTOLE UPCPHYCIS SP. UPCPHYCIS PEGIUS ACTHUS OCELLATUS FINGPLIS MICROSTOMUS PARALICHTYS CENTATUS ADDITIONAL LAPVAE CAUCHT	SAMPLING DEPTH C-15M 1 1 33.5 1 1 17.9 4 3 2.7 2.5-2.8 3 3 9.7 7.8-13.1 1 1 7.6		SAMPLING CEPTH 18-33M  2	NL SL 0	0.3 0.3 0.7 1.5 1.0 0.3 0.3
K 7 C7 O2  MYRICH THYS DC LLATUS  CFHICHT HUS OCELATUS  FAGRAULIS "UPYSTOLE  NOTCSCOPFLUS SP.  UFC THYCLS PEGIUS  SCOMBER JAPONICUS	SAMPLINC DEPTH 0-15M 1 1 99.9 1 1 68.5 1 1 12.5 1 1 6.1	TL TL TL NL	SAMPLING DEPTH 18-33M  1 1 10.4  1 1 11.9	SL 0	0.3 0.3 0.3 0.3 0.3
I I (9 02 REFUDERTIA TYPANNUS ANCHOM MITCHILLI ADDITINNA LARVAE CAUGH	SAMPLINC CEPTH 0- 6M 6 6 22.3 17.0-29.1 9 9 37.8 24.6-41.0				0.7

TABLE 3. (continued)	54		
CPUISE DATE D66 1 1966 STA. D M SPECIES ANALYZED	NUMBER LENGTHS (MM) NO. TOTAL MESS. MEAN RANGE MEAS. EGGS	*********** LARV AE ***********************************	PEP IOM
t 2 (8 02 BREVOOR TI A TYRANNUS GAOUS MORHIA AMMONTES SP.	SAMPLINC OEPTH 0-6M 4 4 19.6 15.9-28.0 TL 2 2 8.1 7.2- 9.0 SL 0 1 1 7.5 TL		0.5 0.2 0.0
PARALICHTHYS PENTATUS ADDITIONAL LARVAE CAUGHT	I 1 9.7 SL O UNIDENTIFIED		0.1 C.C
		• • • • • • • • • • • • • • • • • • • •	
t 3 - C8 - D2 - GADLS MORHUA - PELLACHIUS VIPENS	SAMPLING OFF TH C-15M 2 2 8.3 6.5-10.0 SL 0	SAMPLING DEPTH 18-24M 3 2 9.1 8.5- 5.6 SL 0	0.5 0.0 0.6 C.C
TELESTEMUS KANTHUKUS PARALICHTHYS CENTAITES	1 1 8.6 SL 0	1 1 1 4 C SL 1 1 5 C SL 0	0 •2 0 • 5
L 4 (8.02 AMMINYTES SP.	SAMPLING OFFTH 0-15M 2 2 25.C 17.6-22.5 TL	SAMPLING DEPTH 18-23M 4 4 22.9 14.6-28.1 TL	1.9
1.5 (9.02	SAMPLING DEPTH G-15 M	SAMPLING DERTH 18-33M	
REFUCIRITA TYPANNUS DIAPHUS SP. NET (SCOPELUS SP.	1 1 8.6 SL	1 1 17.0 TU 1 1 7.1 SL	0.3 0.3 0.3
UPCEHYCIS SP. A COIT TONAL LAPVAE CAUGHT	1 1 2.7 NL GOBIIOAE	CARAPIDAE	0.3
M 1 (8 02 REEVOORTIA TYPANNIS LEICSTOMUS XAATHUKLS MICFORDGON UN DULAFUS PARALICHTHYS CENTATIS	SAMPLING CEPTH C-6M 3 3 23.6 17.4-27.4 TL 2 2 14.1 13.5-14.7 SL 2 2 10.9 10.5-11.3 SL 1 1 13.0 SL 0		0 .4 0 .2 0 .2
• • • • • • • • • • • • • •	1 1 13.0 St 0		0.1 0.0
N 2 (8 02 RREVOORTIA TYRANNUS LEICSTOMUS XANTHUNUS	SAMPLING DEPTH 0-6M 2 2 18.8 17.7-20.0 TL 4 4 12.8 11.6-14.9 St		0 •2 0 •5
N 3 CR 02  BREVPORTIA TYFANNUS  CAOLS MORHUA  LEICSTOMUS XANTHUMUS  AMMONTES SR.	SAMPLING OEPTH C-6M 2 2 16.6 15.8-17.4 TL 1 1 9.6 SL O 2 2 11.5 10.0-13.1 SL 1 1 22.1 TL		0 .2 0 .1
PARALICHT HYS CENTATUS ACOITIONAL LARVAE CAUCHT	1 11.2 SL O		0.1 (. (
M 4 C8 02 LETCSTCMUS XANTHUMUS MICFOPOGON UN EULATUS AMMCOYTES SP. PARALICHT MYS DENTATUS	SAMPLING 0 EP TH 0-15M 9 9 9.9 7.7-11.1 SL 2 2 7.8 7.7-8.0 SL 2 2 22.0 20.0-24.0 TL	SAMPLING DEFTH 10-33M 191 93 10.4 7.4-13.7 SL 1 1 7.3 SL 1 1 1E.7 TL 12 12 5.5 8.4-10.6 SL 0	66.4 0.9 0.9 4.0 C. C
• • • • • • • • • • • • • • • • • • • •			
M 5 (A 0.2 BEEVOORTIA TYRANNUS ETRUMEUS SAOINA ENGEAULIS EUPYSTOLE LAMEROYCTIS ALATUM OR PHOTONOTUS LEICSTOMUS XANTHUMUS ROTHUS COELLATUS	SAMPLING CEPTH 0-15M 2 2 17.2 14.5-19.9 TL 4 4 21.6 15.4-25.0 TL 2 2 21.9 19.3-24.6 TL	SAMPLING DEPTH 16-33M  1	0.7 1.3 0.7 0.2 3.3 0.3
ETECPUS MICROSTOMIAS PARALICHTHYS CENTATES	1 1 3.4 St	1 1 6.2 St 2 2 7.1 6.1-8.1 St	G.6 0.7 0.0
A OO I TIDNAL LARVAE CAUGHT	VINCIGLEFPIA SP. PARALEPICICAE LOPHIIFCFMES	NETT ASTUM AT IC AE CPHIOLIOAE CAR ANGLOAE	
N 1 (9 02 BREVOOR TIA TYPANNUS ACOITIONAL LARVAE CAUCHT			0.7
N 2 C9 02	SAMPLING DEPTH C-15M		
PPE WOORTLA TYFANNIS DIAPHUS SP. ACTICSCHPELUS SP. ACTICSCHPELUS SP. ACTICSCHPELUS SP.	5 5 13.9 11.5-18.0 TL 1 1 6.4 SL 1 1 6.2 SL		1 •5 0 • 3 0 •3

CPUISE DATE C66 1 1966 STA. D.M. SPECIES ANALYZED N.3 C9 02 RPE VORRITA TYFANNIIS CIAFHIS SP. UPCPHYCIS SP. UPOPHYCIS PEGIIIS LFICSTOMUS XANTHIMUS MICROPOGON UNCOLATUS ETREPIS MICROSTOMUS PARALICHTHYS DENTATUS ADDITIONAL LARVAE CAUGHT	SERRANICAE SPARIDAE COBIIOAE SCORPAENICAF LNIOENTIFIEO	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS	14.8 0.3 0.6 C.3 27.9 2.1 0.9 1.8 0.0
N 4 C9 02 OPHICHTHUS MELANDED RUS ETRUMEUS SADINA ENGRAULIS EUR YSTDIF MYCTORHIO AF	SAMPLING OEPTH 0-15M  4	SAMPLING DEPTH I E-23M 1	0.3 2.2 0.6 2.0 0.3
BENTHOSEMA SUPORBITALE CEPATOSCOPELUS MADEREUSIS DIA PHUS SE. O IN CENTCHTHYS ATLANTICUS ELECTRONA RISSOI HYGOPHUM BENOITI UP HYGOMI	1 1 6.6 SL 3 3 8.5 6.9-10.4 SL 1 1 8.9 SL	I L 5.8 SL 1 1 6.3 SL 1 I 5.1 SL 1 1 5.6 SL 3 3 7.3 6.0- 7.5 SL 1 I 4.8 SL	0.3 0.6 0.3 0.3 1.0
LAMFANYCTUS ALATUS OR PHOTONOTU: MYCTOPHUM SP. NETOSCOPELUS P. NETOSCOPELUS FESPI FNCENS UPOFHYCIS SP. UFCFHYCIS REGIUS	1 1 4.1 St 2 2 5.8 5.7 - 6.0 St 1 1 4.5 SL	1 1 6.5 SL 12 11 3.2 2.5- 4.1 NL 2 1 4.8 NL	0.3 0.7 0.6 4.0
HEMANTHIAS VIVANUS PEMATOMUS SALTATRIX LEICSTOMUS XANTHIBUS MICFOPOGON UN OULATUS PERRILUS TRIATANTHUS POT HIS OCELLATUS	3 2 4.6 4.6- 4.7 SL 1 1 8.7 10 10 4.4 3.9- 5.2 SL 5 5 4.7 3.8- 5.7 SL 8 8 3.3 1.7- 4.7 SL 5 5 6.3 4.2- 9.4 SL	1	1 .2 0 .3 7 .0 1 .8 2 .7 1 .8
ETRIPUS MICROSTOMUS PARALICHTHYS DENTATUS SYMFHURUS SP. ACOLTIONAL LARVAE CAUGHT	13 13 4.8 3.2- 9.8 SL 3 3 4.2 3.2- 5.2 SL 0 3 3 6.C 5.6- 6.5 SL	19 19 4.7 3.1-6.0 SL 2 2 2.6 3.3-4.0 SL 2 2 6.9 6.7-7.0 SL SYNOONTICAE PARALEPIO ICAE	10.2 1.6 0.0 1.6
	STOMIATECAE SYNOOCHTICJE PARALE PIOIDAE EREGMACIFOTICAE CPHIOIIIAE SFRRANIIAE CARANGIIJE SPARIDAE LABRIDAE LABRIDAE CALLIONYMICAE COBIIDAE CEMPYLIIJE SCORPAENICAE TETRAOCCHTIGAE LNIOENTIFFEO	BREGMACEROTICAE OPHIDIIDAE SERRANIDAE CARANGIOAE SPARICAE LABRIDAE OR SCARICAI GOBIIDAE TRICHIURICAE SCORPAENICAE BALISTIDAE TETRACOONTICAE UNIOENTIFIEO	

TABLE 3. (Continued)	36	
CRUISE DATE C66 1 1966 STA. D M SPECIES ANALYZED N S (9 C2)	NUMBER LENGTHS (MM) NC. NUMBER LENGTHS (MM) NO.  TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING CEPTH O-15M SAMPLING DEPTH 16-33M  15 15 11.9 5.7-17.5 TL 6 6 11.5 8.6-13.4 TL	NO. PER ICH LARVAE EGGS 6.5
PREVORTIA TYRANNIS ETRIMEUS SADINA CERATO SCOPELUS MAMMINGI DIA PHUS S.P. HYGOPHUM HYGOMI MYCTOPHUM AFFINE	11 11 9.9 5.8-14.5 TL	3 • 7 0 • 3 0 • 3 0 • 3 0 • 3
NCTILYCHNUS VALDIVAE NCTICCOPELUS SP. FNCHELYOPUS CIMBPIUS UFOPHYCIS SP. HEMANIHTAS VIVANUS	1 1 5.8 St 1 1 7.9 St 1 1 2.4 St 0 0 19 15 2.7 1.5- 4.0 NL 9 9 7.7 2.C- 3.2 Nt 1 1 5.1 St	0.3 0.3 0.3 8.7 0.3
PLECTRANTHIAS CARMUFFLLUS LEICSTOMUS KANTHUMUS MICEPPOGON UNDULATUS PRIONDIUS CAPOLINUS	1 1 4.5 SL 3 3 4.9 4.6-5.1 SL 3 3 5.6 4.7-7.3 SL 2 2 4.8 4.5-5.1 SL 1 1 5.3 SL 3 3 6.3 5.5-7.8 SL 2 2 5.6 5.3-5.5 SL	0.3 1.9 0.9 1.6
PCTHUS OCELLATUS FIRCPUS MICPOSTOMIS PARALICHTHYS DENTATUS SYMTHURIUS SP. ADDITIONAL LARVAE CAUGH	2 2 7.7 7.5- 7.9 SL 2 2 7.3 5.7- 8.9 SL 6 6 4.3 3.5- 5.3 SL 9 5 4.3 3.3- 5.7 SL 6 6 5.1 3.7- 6.9 SL 0 3 3 4.7 3.8- 6.4 SL 0 2 2 7.2 6.7- 7.6 SL 1 1 6.4 SL THURAENICIE MORINGUIDAE	1.3 4.8 2.8 0.9
	OPHICHTHICAE SYNDOCNTICAE UPHICITORE LOPHICITORE LOPHICITORE LOPHICITORE SER MACE POTICAE LABRIDAE CARAPIDAE CALLIDAY CALLIDAYMICAE GOBIIDAE SCORPAENICAE TRIGLICAE SPARIDAE TRIGLICAE SPARIDAE LABRICAE OR SCARICAE SPARIDAE UNIOPYTIFIED SCORPAENICAE UNIDENTIFIED SCORPAENICAE UNIDENTIFIED	
P 1 C9 D 2	SAMPLING DEPTH C- 6 M	
CALLECHELYS PERPYAE MYROPHIS PUNCTATUS PREVCOPTIA TYPANNUS LEICSTOMUS XANTHURUS MICPPDOGON UNDULATUS SCCFHTHALMUS AQUINUS ADDITIONAL LARVAE CAUGH	1 1 67.0 NL 1 1 67.0 TL 3 3 14.5 13.6-17.3 TL 8 8 13.2 12.0-14.7 SL 3 3 10.1 9.6-10.9 SL 2 2 5.5 3.2- 7.7 SL	0.1 0.1 0.4 1.0 0.4 0.2
P 2 (2 0.2 REEVOOPTIA TYRANNIIS LEIESTEMUS KANTHIJHUS PARALICHTHYS PENTATES ACDITIONAL LARVAE CAUCH	SAMPLINC CEPTH 0-6M 9 9 21.1 14.6-26.6 TL 12 12 12.4 10.1-14.2 SL 1 1 3.8 SL 0  T SPARIDAE LNIDENTIFIED	1.1 1.5 0.1 c. c
		• • • • • • • •
P 3	SAMPLING DEPTH C- 6M 108 108 14.8 6.5-23.9 TL 1 1 30.8 TL 17 17 10.5 7.0-13.8 SL T SYNGNATHICAE SPARIDAE UNICENTIFIED	13 .1 0 .1 2 .1
P 4 (9 02  BPEVORTIA TYRANNUS CERATOSCOFFLUS MADEFENSIS UPOPHYCIS SP. LEICSTOMUS XANTHUMUS MICEPPOGON UNCULATUS PEPRILUS TETACANTHUS ETROPUS MICERSTOMUS PARALICHTHYS DENTATUS ACDITIONAL LARVAE CAUGH	SAMPLINC DEPTH 0-15M 45 44 12.6 7.1-17.9 TL 1 1 5.9 SL 20 17 5.0 3.2-9.0 NL 18 18 6.C 4.3-10.3 SL 4 4 5.5 3.9-6.6 SL 2 2 4.3 3.0-5.6 SL 6 6 6.4 5.3-7.7 SL 6 6 4.4 3.8-5.0 SL 0 BREGMACEFOTIOAE SERPANICE CARANGILEE	13.6 0.3 6.I 5.5 1.2 0.6 I.8 1.8
	SPARIDAE UNIDENT IFIED	

TABLE 3. (continued)

0015E DATE		** * * * BE P		AE ************************************	NO.	******** NUMBE			AE ************************************	NO •	NO . PER 10M
STA. D.M. SPECIES ANALYZED		MIZS.	MEAN	RANCE MEAS			AS.	MEAN	RANGE MEAS.		LAFVIE EEGS
OFH TOH THUS OCELLATUS	JAMPLI	140 00	r In (	,- <b>.</b> ,		3 447 2 140		3 8. C	TL		0.3
BRE VOOR TIA TYPANNUS	21	21	10.1	7.0-16.0 TL		5			6.5-15.4 TL		8.0
PENTHOSEMA SUEDPRITALE				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		í	í		SL		0.3
CERATOSCOPELLS MADEFENSIS	1	1	6.1	SL		•	•		,,,		0.3
CERATOSCOPELUS WARMINGI	i	i	5. C	ŠĹ							0.3
DITA PHUS S.P.	i	ì	7.1	ŠL		2	2	6.7	6.3- 7.1 SL		l +0
HYGOPHUM BENDITT OR HYGOMI						1	1	5.5	SL		0.3
NETELYCHNUS VALCIVAE						2	2		5.2- 6.3 SL		0.7
NETES OPE LUS SP.	1	1	6.5	SL		4	4	€.3	5.8- 7.1 SL		1 •6
ACTISCOPELUS RESPLENDENS						2	2	5.7	5 .2- 6.2 SL		0.7
UECEHYCIS SP.	В	6	2.0	1.7- 2.5 NL		2	2	2.7	2.5- 2.9 NL		3 <b>.</b> 1
FFMANTHIA C VI VANUS	5	4	3.3	2.8- 3.8 51		1	1	2.5	SL		1.8
PLECTRANTHIAS GARHUFELLUS						2	2	4.7	4.5- 4.9 SL		0.7
LFICSTOMUS XANTHUHUS	10	10	4.2	3.4- 5.4 SL		2	2	5.3	5.2- 5.4 SL		3.7
MICECPOGON UN CUL ATU S	3	3	3.7	3.4- 4.2 SL		ı	ı	6.5	St		1.2
ALXIS SP.						1	1	9.5	SL		0.3
ACTION OCELLATUS	3	3	4.1	3.8- 4.4 SL		1	1	7.4	SL		1.2
FIRCPUS MICROSTOMUS	3	3	4.2	4.1- 4.3 SL		6	6	4.5	3.9- 5.5 SL		2.9
PARALICHTHYS DENTATES	3	3	4.5	4.1- 4.9 SL	4					Q	1.0 1.3
A COLT TONAL 1 APVAF CALL	SHT OPHICH	THICA	F			MURAENIO	AΕ				

HTHYS DENTATES

ADDITIONAL LAPVAE CAUGHT OPHICHTHIDAE
MYCTOPHILAE
CPHIGHTLEE
SERRANICAE
SPARIDAE
MUCILIDAE
CALLIONYMICAF
GOBIIOAE
SCORPAENIDAE
UNIDENTIFIED

MURAENIDAE
OPHICHTHICAE
NETTASTOMATICAE
SYNODONTICAE
BREGMACEROTIDAE
OPHICHIDAE
SERRANIDAE
SPARIDAE
LABRIDAE
LABRIDAE
CALLIONYMIDAE
GOBIICAE
GEMPYLIDAE
SCORPAENITAE
TRIGLIDAE
UNIDENTIFIED

TABLE 3. (Continued)	36		
CPUISE DATE CAG ? 1966 STA. D.M. SPECIES ANALYZED A 1 CC C4 CIDERA HAPPINGUS MAPENGUS GADLS MORHUA AMMONYTES SP. AEDITIONAL LARVAE CAUCHT	TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING CEPTH O- 6M 6 6 34.7 21.1-39.9 TL I 1 6.2 NL 0 13 13 15.3 8.2-28.7 TL	NUMBER LENGTHS IMM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS	NO. PER LOM LAPVAE EGGS 0.7 0.1 1.6
A 2 (6 D4 CLUPEA HARENGUS HARENGUS GADLS MORHUA AMMODYTES SP. ADDIT IDNAL LARVAF CAUGHT	SAMPLINC CEPTH 0-15M 7 7 35. C 30. 0-38.4 TL 6 6 5.9 4.3-7.4 NL 1 18 15 23.8 8.9-47.4 TL SYNGNATHICAE BLENNIICAE COTIDAE		2.1 1.8 0.3 5.5
A 3 (6 C4 CLUFFA HARENGUS HAP ENCUS GADIS MORHUA AMMODYTES SP. PSEUDOPLEUPEN ECTES IMERICANUS ADDITIONAL LARVAE CAUGHT		SAMPLING DEPTH 18-23M 2 2 31.5 31.1-31.9 TL 20 19 15.0 5.6-28.7 TL PHOLIDAE COTTICAE	7.3 0.3 2.3 14.8 2.0
A 4 C6 D4 CLUFFA HARENGUS HAPFNOJS GADUS MORHUA APMONYTES SP. ADDITIONAL LARVAE CAUCHT	SAMPLING OEPTH 0-L5M 5 5 26.3 24.9-28.5 TL 3 3 5.2 4.6-5.9 NL 8 10 10 19.4 5.3-29.8 TL BLENNIICAE COTTIDAE	SAMPLING CEPT   18-33M 6 6 32.9 30.3-37.6 TL 35 35 21.5 10.9-34.4 TL 8LENNIIDAE PHOLICAE COTTIOAE	3.5 1.0 2.7 14.7
A 5 (7 04 CLUEEA HARENGLS HARENGUS AM*COYTES SP. ACOLTIONAL LARVAE CAUGHT	SAMPLINC DEP TH C-15M  1	SAMPLING CEPTH 18-33M 6 6 21.5 29.C-34.2 TL 2 2 17.5 13.5-21.6 TL 8LENNIIDAE COTTICAE	2.3
A 6 (7 C4 AMMEDYTES SP.	SAMPLINC CEPTH 0-15M 5 5 22.3 15.5-35.5 TL	SAMPLING DEPTH 16-23M	1.7
A 7 C7 04 CLUFEA HARENGUS HARENGUS GADLS MORMUA AMMIDYTES SP. ADDITIONAL LAPVAE CAUCHT	SAMPLING OEP TH 0-15 M 3 3 21.5 28.6-34.0 TL 1 1 29.9 SL 0 73 70 20.6 13.4-21.3 TL	SAMPLING CEPTH 18-33M 4 4 32.8 32.1-33.9 TL 23 23 21.6 16.9-40.1 TL 8LENNIIOAE	2 •2 0 •3 29 •6
E 1 (7 04 AMMONYTES SP. PSEUDOPLEUPONECTES AMERICANUS A DOIT IDNA! LARVAE CAUGHY	SAMPLINC DEP TH		1.3
8 2 (7 04 GADLS MORHUA AMMONTES SP. LIMANDA FERRUGINEA PSFUDOPLEUPONECTES AMERICANUS ADDITIONAL LARVAE CAUGHT	COTTIONS UNIDENTIFIED		1.5 0.3 3.0 2.1 22.1
P 3 C7 04  FACHELYOPUS CIMBRIUS  CADUS MORHUA MELANOGRAMMUS AEGLEFINUS AMMODYTES SP.  CITHAPICHTHYS ARCTIFFONS LIMANOA FERRUGINFA PSEUDOPLEURON FOTEN AMERICANUS ACOLTIONAL LARVAE CAUCHT	SAMPLINC DEPTH C-15M  4 4 15.6 4.2-47.6 SL 1  6 4 14.2 12.8-15.7 TL  1 4 3 3.8 3.5- 4.2 SL  76 13 4.0 3.2- 5.4 SL  CDTTICAE UNICENTIFIED	SAMPLING CEPTH 18-33M  3 1 5.4 SL 0  1 1 1 15.6 TL  PHOLIDAE CCTT 1CAE	0.0 0.3 2.2 0.3 0.0 0.3 1.5 0.3 1.3 25.3

TABLE 3. (continued) 59

TABLE 3. (continued)	37		
CRUISE DATE  066 ° 1966  STA. D.M. SPECIES ANALYZED  P.4. C7 04  CLUPEA HA RENGLS HAR ENGUS  ENCHELYDOUS CMBRIUS  GADLS MORNUA  MELAND GRAMMUS AEGIEFINUS	**************************************	NUMBER LENGTHS [MM] NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING EEPTH 18-33M	10. PER 10 M LAPVAE EGG S 0.7 0.0 1.0 0.0 4.3 0.0 1.3
THOUAT SAVRAL LANGITIONAL	6 6 19.6 14.2-23.5 TL	3 3 21.2 18.1-25.9 TL	2 .8
B 5 (7 D4 ENCEPTYOPUS CIMBRAUS GADLS MORMIA MELANJGRAMMUS A EGLEFINUS PILLACHIUS VIPENS A MMCOYTES SP. LIMANDA FERPUGINEA A CDITIONAL LARVAE CAUEHT	SAMPLING DEPTH 0-15M  1 2 1 1 1 8.7 NL 0 9 9 15.9 11.9-18.1 TL 1 6.4 SL BLENNITCAE	SAMPLING OEPTH 1E-33M  1 2 0 0  3 3 23.6 16.5-36.5 TL  BLE NNIIOAE COTTIDAE	0.0 C. 6 0.0 1.3 0.0 0.3 0.3 0.0 3.7
			• • • • • • • • •
R 6 (7 C4 FACHELYOPUS CIMBRIUS GADES MORHUA MELANDGRAMMUS AEGLEFINUS AMMENYTES SP. ADDITIONAL LARVAE CALGHT	SAMPLING CEPTH 0-15M  [ 1 1 1 1 18.4 13.6-22.5 TL  BLENNI IE &E.	SAMPLING CEPTH 1 = 23M  0 0 0 12 12 15.5 10.5-20.5 TL  COTTIDAE	C.C 0.3 0.0 0.3 C.O C.3 7.3
B 7 (7 04 CFR AT35CO PELUS WAKMINGI A MUCDYTES SP. LIMANDA FERRUGINFA A COLT IONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M  19 19 22.4 13.9-24.1 TL  2 UNIDENTIFIED	SAMPLING DEPTH 1E-73M 21 21 3.3 2.4-6.1 St 4 4 16.3 14.4-19.6 TL  UNIDENTIFIEC	7.0 7.0 0.7
C I CR 04 GADLS MORHUA AMMODYTES SP. LIMANDA FERRUGINEA PSFUDOPLELPONECTES AMERICANUS ADDIT TINAL LARVAE CAUGHT	SAMPLING OEPTH C-15M  3		0.0 0.3 C.9 5.8 2.1
	SAMPLING DEP TH 0-15 M  1		0.3 0.0 1.8 1.8 2.7
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • •
	SAMPLINC CEPTH 0-15M  1 34.0 TL 2 2 13.8 12.5-15.0 SL 0 3 3 25.6 9.1-34.6 TL 8 6 4.4 4.0- 4.7 SL 1 1 5.2 SL  BLENNIIC/E SCORPAENICAE COTTICAE LNIOENTIFIED	SAMPLING DEPTH 10-24M  1 1 7.9 NL 0 5 5 27.2 9.2-34.0 TL 16 15 4.1 3.7- 5.2 SL 11 10 4.1 3.4- 4.9 SL BLENNIIDAE PHOLICAE	0.3 0.8 c.c 1.7 5.0 2.1
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
C 4 (8 04 ENCHELYOPUS C M BRIUS GAOLS MCPHUA PCLIACHIUS VIRENS AFMCOYTES SP. LIMANDA FERRUGINEA ACDIT DNAL LARVAE CAUGHT	SAMPLINC DEPTH 0-15M  1	SAMPLING DEPTH 1e-23M L I 4.9 NL 0 2 2 6.1 4.6- 7.7 NL 2 0 1 1 35.C TL 63 25 3.9 3.1- 4.5 SL BLENNIIDAE	0.3 0.C 0.7 1.9 0.3 C.C 0.3 46.2
C 5 CP 04 FNCHELYCPUS CIMBRIUS CADUS MORHUA AMMICTES SP. GIYFTOCEPHALUS CYNCGUCSSUS IIMANDA FFRRUCINEA	SAMPLING DEPTH C-15M  2 2 25.5 22.5-28.6 TL 1 1 6.4 SL 75 24 4.1 3.3- 5.2 SL	SAMPLING CEPTH 18-33M 1 1 2.4 SL 0 1 1 4.2 SL 2 2 2 15.8 17.7-21.9 TL 75 25 4.4 3.5- 6.2 SL	0.3 0.0 0.3 1.5 1.3 0.3

TABLE 3. (continued)

TABLE 3. (continued)	00		
CPUISE DATE  066 7 1266  STA. D M SPECIES ANALYZED  C 6 (R 04  CADLS MOR HUA  ANY(COTTS SP.  CLYSTICE PHALLS CYNDOLOSSUS LIMANDA FERRUCINEA	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLINE DEPTH 0-15M 2 1 4.4 SL 3 1 1 19.2 TL	**************************************	NO. PER 1DM LARVAE EGG S 0.9 1.0 0.3 1.0 23.5
PSFLDDPLELRONECTES AMERICANUS A ODITIONAL LARVAE CALGHT		1 1 5.6 SL 8LENN110AE	D .3
C 7 CP 04 CICUS MOREUA AMMONTES SP. I IMMOA FERRUGINEA	SAMPLING OEPTH 0-15M  1 1 23.7 TL 2 1 5.7 SL	SAMPLING DEPTH 18-23M 0	0.0 0.3 0.3 0.7
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
C 8 (P C4	SAMPLING DEPTH 0-15 M 2 2 17.9 16.3-19.6 TL	SAMPLING EEPT	1.3
FI C9 04 A MMODYTES SP. PSEUDOPLEURONECTEN AMERICANUS ADDIT JONAI LARVAE CAUCHT	SAMPLING DEPTH C- 6M 9 9 71.8 7.7-41.3 TL 602 25 3.8 3.2-4.3 SL SYNGNATHIBAE PHOLIDAE COTTIDAE UNIDENTIFIED		1.0 73.0
D 2 C9 04  AMMEDYTES SP.  CIY FTOCFPHALUS CYND QLOSSUS  LIMANDA FERRUGINEA  PSEUD)PLEIRON FCTES AMERICANUS  ADDIT IONAL LARVAE CAUCHT	SAMPLINC DEPTH 0- 6M 6 6 30.9 24.9-28.6 TL 1 1 4.9 2 2 4.2 3.4- 5.0 SL 210 25 3.7 3.2- 4.3 SL 8LENNITCAE HICLIOAE UNIDENTIFIED		0.7 0.1 0.2 25.5
F 3 C9 04  FNCFEL YOPLS CIMARAIJS  AMMONYTES SP. LIMANDA FERRUCINFA PSEUDOPLELPONECTES AMERICANUS  ACOLT DNAI LARVAE CAUCHT			0.0 1.2 4.5 2.7
E 4 C9 D4 GADLS MOPHIA LIMANDA FERRUGINEA PSELNOPLEURON ECTEN AMERICANUS AODITIONAL LAPVAE CAUCHT	SAMPLING DEPTH C-15 M 2 2 3.9 3.7- 4.1 SL 6 14 13 4.3 3.5- 5.7 SL 7 6 5.3 4.8- 6.0 SL RLENNIII/E PHOLIDAE UNIOENTIFIED		0.6 1.8 4.2 2.1
		• • • • • • • • • • • • • • • • • • • •	
C S CR D4 FACHELYOPES CIMBPAUS GADLS MORHUA AMMONYTES SP. I IFFRIS I NOUTLINUS GLYFTSCEPHALLS CYMOGLOSSUS LIMANDA FERRUCINEA PSELDOPLE UPCNECTES AMFRICANUS ADDIT IDNAI LARVAE CAUGHT		SAMPLING DEFTH 18-33M  1 1 5.6 SL 12  1 1 3.8 TL 17 13 3.8 3.0- 4.8 SL 2 2 4.6 4.3- 4.9 SL UNICENTIFIC	0.3 0.3 1.2 7.6 0.7 0.6 0.3 14.7
C A CA CA CLUFFA HAPENCIS HAPENCUS GADIS MORHUA PILLACHTUS VIRENS	SAMPLING CEPTH C-15M 1 1 30.7 TL 6	SAMPLING EEPTH 16-33M  3	0.3 1.0 2.8 0.3 C.C
ANMINYTES SP. GLYPTOCEPHALLS CYNDGLOSSUS LIMANDA FERRUCINEA ANDITIONAL LARVAE CAUCHT		2 2 5.0 4.6- 5.4 SL 47 25 3.6 2.7- 5.6 SL UNIDENTIFIED	0.3 0.7 23.4
D 7 (P C4	SAMPLING EEPTH 0-15M	SAMPLING DEPTH 18-23M	
D 8 (R C4 RENTHISEMA GLACIALE ACOLTIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M PARALEPICICAE	SAMPLING DEPTH 1E-33M 2 2 6.5 6.1- 6.9 SL UNIDENTIFIED	0.7

TABLE 3, (continued)

TABLE 3. (continued)			
CRUISF DATE POG 3 1966 STA. D M SPECIES ANALYZED E I 13 04 PCLLACHIUS VIPENS AMMODYTES SP.	NUMBER LENGTHS [MM] NC. TOTAL MEAS. MEAN RANGE MEAS. FGGS SAMPLING CEPTH 0-6M 2 1 12.1 SL 0 20 20 36.7 21.3-45.5 TL	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN PANGE MEAS. EGGS	NO. PER 10 2 LAFVAE EGGS 0.2 0.0 2.4 1.6
PSEUDOPLEUR ON FETES AMERICANUS ACOIT IONAL LARVAE CAUCHT	13 13 4.4 3.9- 4.9 SL ANGUILLA RCSTRATA BLENNIICÆ PHOLIDAE COTTIDAE		
E 2 13 04 AMEDYTES SP. PSEUDOPLEURONECTES AMERICANUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M 26 26 37.5 22.2-48.2 TL 34 25 4.2 3.2-5.4 SL 8LENNIICAE PHCLIDAE UNIDENTIFIED		3.2 4.1
		• • • • • • • • • • • • • • • • • • • •	
E 3 22 04 APMICHYTES SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15 M 3 3 41.6 21.8-50.0 TL ANGUILLA FISTRATA BLENNISCAE		0.9
F 4 22 04 ENCHFLYCPLS CIMBRIUS	SAMPLING DEPTH C-15M 1 1 2.0 SL 0		0.3 0.0 1.7 1.5
GAOLS MARHUA GLYFTOCEPHALUS CYNDELCSSUS LIMANDA FERRUGINEA ADDIT 10NAI LARVAE CAUEHT	5 4 4.0 3.4- 4.8 SL 6 15 8 5.1 4.2- 6.0 SL 353 25 3.8 2.7- 5.3 SL UNIDENTIFIED	L 1 E.C SL 0 LO 5 5.5 5.0-6.5 SL 334 25 3.8 2.9-5.3 SL GCB11DAE UNIDENTIFIEC	6.2
GADES MORHUA AMMEDYTES SP.	SAMPLING DEPTH 0-15M	SAMPLING DEFTH 18-24M 1 1 4.1 SL 1 1 1 24.4 TL	0.2 0.2
GLYPTOCEPHALUS CYNOGL CSSUS L IMANDA FERRUGINEA ADDIT IDNAL LARVAE CAUCHT		3 3 5.5 5.8- 5.9 St 240 25 4.6 3.3- 7.2 St	1.1
E 6 22 04 ENCHELYOPUS CIMBRIUS CACUS MORHUA LIMANDA FERRUCINEA	SAMPLING OEPTH C-15M 0 59 25 3.8 3.0- 5.6 SL	SAMPLING OEPTH 18-33M 1	0.3 0.3 0.0 38.0
THQUAD SAVRAL FANCITIONA	UNICENTIFIED	UNIDENT IF IEC	
E 7 22 04 ENCHELYOPUS CIMBRIUS GLYFTOCEPHALUS CYNCCLCSSUS	SAMPLING DEPTH 0-15M	SAMPLING DEPTH 18-23H  2 2 5.7 4.7-6.7 SL  28 24 4.3 3.3-5.4 SL	0.0 0.7
LIMANDA FERRUGINEA ACOITIONAL LARVAE CAUCHT		28 24 4.3 3.3- 5.4 SL	14.4
E 9 22 04	SAMPLING DEP TH C-15M	SAMPLING CEPTH 18-33M	
ENCHEL YOPUS CIMBRIUS Limanda Ferruginea Aoditional Lapvae Caucht	1 1 6.1 SL	UNI DENTIFIEC	0.3 C.3
F 1 14 94 GLYFTOCE PHALUS CYNGELCSSUS PSEUDO PLEUPON FCTEN AMERICANUS ACOLT JONAL LARVAE CAUCHT	BACITTOS		0.1 24.1
F 2 14 04 ENCHELYMPUS CIMBRIUS AMMODYTES SP.	SAMPLING DEPTH 0-64 1 1 3.5 SL 0 4 4 29.1 25.8-21.0 YL		0.1 0.C 0.5
LIMANDA FERRUCINEA PSEUDOPLEUPONECTES AMERICANUS A DOLLTIONAL LARVAE CAUGHT	4 4 4.0 2.9- 4.5 SL 210 25 4.2 3.3- 6.3 SL		C.5 25.5
F 3 14 04 GADES MORNUA AMMERYTES SP. PSEEDORFEERENEETEN EMERICANUS ADDITIONAL LARVAE CAUGHT	SAMPLINC DEPTH C-15M  5 5 24.7 20.9-22.9 TL  37 19 4.1 3.0- 5.8 SL  BLENNIITAE PHOLIDAE LNIDENTIFIED		0.0 0.3 1.5 11.2

CPHISE DATE  PAGE 1966  STA. 1 M SPECIES ANALYZED  F 4 14 04  GABLE MORHUA  AMMONYTES SP.  GLYFFDCEPHALUS CYNDICLOSSUS  LIMANDA FERRUGINEA  PSEUDIPLEIR ONE TES AMERICANUS  ADDITIONAL LARVAE CAUCHT		NUMBER LENGTHS (MM) ND. NO.PER : TOTAL MEAS. MEAN RANGE MEAS. EGGS LAFVAE  0.3 1.5 0.3 0.9 7.0	10M EGGS 0.3
	UNIDENTIFIED	• • • • • • • • • • • • • • • • • • • •	
F = 14-04 GABUS MARHJA GAYFTOCEPHALUS CYMOGLESSUS LIMANDA FERRUGINEA PSELOOPLEURONECTES ZMERICANUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 5  8 7 3.7 3.4-4.0 SL UNIDENTIFIED	SAMPLING DEPTH 16-23M  2 2 4.E 4.7-4.8 SL 0.7 33 25 4.1 3.5-4.7 SL 13.4 3 3 5.7 4.5-6.7 SL 1.0  8LENNIIDAE UNI DENTIFIEC	4. ·
		• • • • • • • • • • • • • • • • • • • •	• • •
F 6 14 04 GADES MORHUA AMMODYTES SP. GLYFFOCEPHALUS CYNOCLOSSHS LIMANDA FERRUGINFA ADOLT IONAL LARVAF CAUGHT	SAMPLING DEPTH C-15 M  1	SAMPLING [FPT+ 18-33M 1 1 4.3 SL D 0.6 0.3 1 1 5.0 SL 0.6 41 25 4.5 3.7- 7.1 SL 35.6 BLENNIDAE	0.7
			• • •
T L4 04  AMMONTES SP.  LIMANDA FERRICINEA  ACDITIONAL LARVAE CAUCHT		SAMPLING CEFTH 18-33M 2 2 21.2 27.6-34.6 TL 0.7 18 17 5.7 4.8-6.9 SL 8.1 UNIDENTIFIEC	
G L LS 04 GADLS MAR HUA AMMENTES SP. GLYFTACEPHALUS CYNAGICSSUS LIMANDA FERRUCINEA PSELDAPLEURONECTES (MERICANUS ADDITIONAL LARVAE CAUGHT		0.4 0.4 0.1 0.4 13.1	0.0
C 2 15 04  CADUS MORPHIA  PICLACHIUS VIRENS  AMMODYTES SP.  GLYYTHOEPHALUS CYNNICCOSSUS  CIMANDA FERRUGINEA  PSEUDOPLEURONETEN AMERICANUS  ACDITIONAL LAPVAE CAUGHT	SAMPLING DEPTH 0-6M  1 1 31.4 SL 0 4 4 24.4 21.1-31.6 TL 6 5 5.6 5.0-6.2 SL 1 115 25 4.2 3.2-5.7 SL	0.0 0.1 0.5 0.7 0.1 13.9	C. 1 0.0
G 3 15 C4 CACUS MORIJA LIMANDA FERRUGINFA PSELORRIFURCNIECTIS IMERICANUS A DOITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 3 2 5.8 4.2- 7.4 NL 2 12 12 4.2 3.4- 5.0 SL 15 12 4.9 3.4- 6.2 SL BLENNITE & E PHOLIDAE	0.9 3.6 4.5	0.€
C 4 15 04 G ADES MERHUA AMMEDYTES SP. GLYFTOGEPHALUS CYNDELESSUS LIMANDA FERRUGINFA PSEUNDRIFURON ECTES AMERICANLS ACDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 2 2 4.5 4.1- 4.5 SL 12 1 1 43.8 TL 3 2 4.7 4.7- 4.7 SL 54 25 4.0 3.1- 5.5 St 1 1 4.3 SL BLENNIICAE LNIDENTIFIED	0.6 C.3 0.9 16.4 C.3	3.6
C. 5 IS C4  AMMENTES SP.  GLYFTOCEPHALLS CYNOGLESSUS LIMANDA FERRUCINFA PSELDOPLE UPCNECTES IMERICANUS ADDITIONAL LARVAE CAUGHT		S AMPLING DEPTH 18-33M  4 1 5.8 St 5.2 5 4 4.2 3.3- 4.6 St 13.1 0.3	
G 6 14 04 AMMENYTES SP. ETMANDA FERRUCINEA	SAMPLINE CEPTH 0-15M 1 1 26.C TL	SAMPLING DEPTH 18-33M 1 1 32.6 TL 0.6 1 1 5.1 St 0.3	

COULSE DATE  166 3 1966  51A. D. M. SPECLES ANALYZEG  1 15 04  GLYFTOCEPHALUS CYNOCLOSSUS  PSELDOPLE LRON FC TES. ZMERICANUS	NUMBER LENGTHS (MM) NC. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH C- 6M 1 10 9 5.0 3.4- 7.0 SL	NUMBER LENGTHS (MM) ND. TDTAL MEAS. MEAN PANGE MEAS. EGGS	NO . PER 10M LAFVAE EGGS O .1 1 .2
H 2 15 04 CAGUS MOR HJA A NY (DY TES SP. CLYPTICEP HALLS CYNGGLOSSUS PSEUDOPLEURON FOTEN AMERICANUS A DOLTTIONAL LA EVAE CAUGHT	SAMPLINC CEPTH 0-15M  1 1 3.5 SL 0  1 1 22.0 TL  1 1 5.1 SL  22 22 5.3 3.7- 7.0 SL  UNIDENTIFIED		C.3 C.( 0.3 0.3 6.7
H R 15 34 GADES MORHUA AMMENYTES SP. GLYFTOGEPHALUS CYNGGLESSUS LIMANDA FERRUCINEA PSELOOPLEURONECTES AMERICANUS ADDITIONAL LARVAE CALGHT	SAMPLINC DEPTH C-15M 2 1 3.5 St 2 1 1 30.4 Tt 1 3 2 3.6 3.5- 3.6 St 21 21 4.9 3.7- 6.7 St BLENNIIC FF		0.6 0.6 0.3 0.3 0.9 6.4
H 4 15 04 GACUS MORHJA LIMANNA FERRUCINFA P SELDOPLE WON FC TES AMERICANUS A COIT IONAL LARVAF CAUGHT	SAMPLINC DEPTH 0-15M  3		C.C 1.F 0.9 1.2
F 5 15 04  GADES MORHUA  AMMODYTES SP.  GEVETOCEPHALUS CYNDOLOSSUS  LIMANDA FERRUCINEA  ACOIT IONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 0  1 1 40.2 TL  51 25 4.5 3.5- 5.9 SL UNIDENTIFIED	SAMPLING OFFTH 18-24M  2	0.0 0.3 0.3 20.7
H & 15 04 GADLS MARHUA PCLLACHIUS VIRENS A MMCDYTES SP. GLYPTDCEPPALUS CYMOGLDSSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT	SAMPLINC DEPTH 0-15M  1	SAMPLING DEFTH 1P-33M  0 0 3 3 33.1 26.9-37.3 TL 1 41 6 5.6 3.9- 8.2 SL UNIDENTIFIED	0.3 0.C 0.3 0.C 3.1 0.9 29.0
H 7 15 04 AMMEDYTES SP. GLYFTOCEPHALLS CYNCCLESSUS LIMANDA FERRUGINEA ADDITIONAL LARVAF CAUCHT	SAMPLIAC DEPTH 0-15M 23 21 29.6 22.2-41.3 Tt 2 2 5.5 5.2-5.7 St	SAMPLING DEPTH 18-23M 2 2 29.0 26.0-32.1 TL 1 1 5.6 SL 2 2 4.6 4.4- 4.8 SL TETRADDONTICAE UNIDENTIFIED	7.7 0.3 1.3
J 1 19 04 SCOPHITHALMUS AD WONU! PSEUDOPLE WONE: TES AMERICANUS	SAMPLING CEPTH 0- 6M 2 2 3.7 3.4- 3.9 SL 1 1 8.2 SL		0.2
J 2 19 C4 SCCHTHALMUS AUDINUS THOUGH TAVA F LANDITIONA	SAMPLING CEPTH 0-6M 3 3 3.4 3.2-3.9 St UNIDENTIFIED		G .4
J 3 16 04 BREVOORTIA TYPANNUS AMMERYTES SP.	SAMPLINC DEPTH C- 6M 1 1 29.4 TL 1 1 35.5 TL		0.1 0.1
J 4 16 04	SAMPLING DEPTH C-6M		
J 5 16 C4 GLYFTDCFPFALUS CYND(LPSSUS LIMANDA FERPUGINFA	SAMPLINC CEPTH C-15M 3		0.9 0.9
J 6 16 04 GANES MORHUA AMMENTES SP.	SAMPLING CEPTH 0-15M 0 4 4 35.6 32.2-29.5 TL	SAMPLING DEPTH 18-24M 1 1 6.5 SL 0	0.2 C.C 1.3
J 7 15 04  AMMONTES SP.  GLYPTICEP HALUS CYNDGLOSSUS LIMANDA FERRUCINEA	SAMPLING DEPTH C-15M 6 6 28.7 25.9-31.1 Tt 1 1 5.4 St 5 4 5.2 4.5- 6.0 St	SAMPLING DEFTH 18-33M E £ 28.3 24.2-35.8 TL l	4.5 0.6 1.7

CRUISE DATE DAG 3 1966 STA. D.M. SPECTES ANALYZED K.1. 19.94 RPEVONGTIA TYPANNUS	TOTAL MEAS. MEAN PANCE MEAS. EGGS	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN PANCE MEAS. EGGS	LAFV DE EGGS
RPEVNORTIA TYPANNIS			C.2
к ? 19 94	SAMPLING DEPTH C-15 M		
к 3 — 19 04 	SAMPLING DEPTH C-15M		
K 4 19 04 LIMANDA EFRRUCINEA	SAMPLING DEPTH 0-15M I I 6.7 St		0.3
K 5 19 04 ANNOTES SP.	SAMPLENC DEPTH C-15M	SAMPLING CEPTH 1E-24M 1 1 35.6 TL	0.2
GLYFTOCEPHALLS CYNOCLOSSUS LIMANDA FERRUCINEA ACDITIONAL LARVAE CAUCHT		2 2 5.5 5.5- 5.5 SL	0.3 1.6
K 5 19 04 LIMANDA FERRUCINEA	SAMPLING DEPTH C-15M 4 4 5.9 5.4-6.2 SL	SAMPLING DEFTH 18-33M 7 7 5.8 5.5- 6.4 SL	3.5
v 7 10 24		SAMPLING DEPTH 16-33M	
L TMANDA FERRUCTNEA	3 2 6.1 5.0- 7.2 SL	SAFE DIG TAP TO TE 33"	1.0
L 1 20 04 RPEVCORTE A TY FANNUS SCOPHTHALMUS AGINSUS			0.1
L 2 20 04 SCOPHTHALMUS AQUONUS			0.1
L 3 20 04 SCORETHALMUS ZOUGSUS		SAMPLING CEPTE 18-24M	0.3
L 4 ZO 04 - REYFTOGEPHAEUS CYNOGERSSUS - EMANDA FERRUCINGA	SAMPLING DEPTH (-15M	SAMPLING DEFTH 18-33M 1 1 6.C St 1 1 3.8 St	0.3 C.3
L 5 ZO C4 LIMANDA FERRUCINEA	SAMPLING DEPTH C-15M	SAMPLING OEPTH 18-73M 1 1 11.2 SL	0.3
	SAMPLING DEPTH C- 6M		
R PENCARTIA TYFANNUS PEPRILUS TRIACANTHUS SCCEPTHALPUS AQUONUS	12 12 22.7 20.6-24.7 TL 1 1 5.8 SL 3 3.4 3.2-2.9 SL		1.5 C.1 O.4
M 2 20 04 Scornthalmus agunsus			0.2
M 3 20 04  POTENTIUS CAROLIMUS  PARALICHTHYS CENTATUS  A BOITTONAL LARVAE CAUGHT	SAMPLING PEPTH C- 6M 1 1 7.5 2 2 8.4 8.2- 8.7 SL 7 SYNOOCNTICAE GOBIIDAE		0.1 0.2 C.C

CPULSE DATE PAGE 1966 TTA. D. M. SPECIES ANALYZED W. 4. 20.04  OFFICHTHIS CCELLATUS ETRLWEUS SADINA ANCHOL MEPSETLS FINGRAULIS FUPYSTOLE CEPATOSCOPELUS MAMENCI DIA PHIS SE. HYCOPHIM BENDITI HYGOPHIM BENDITI HE HYGOMI L MMANYCTLS ATER UFCHYCIS SP. HEMANTHIS SP. HEMANTHIS SP. PEPRILUS TRIACANTHUS ROTHS CRELLATUS CITHAPICHTMYS ARCITERONS ETROPUS MICROSTOMUS SYACIJM PAPILLOSUM ADDITIONAL LARVAE CAUCHT	CYCLOTHERE SP. SYNODONTICAE BREGMACEFCTICAE OPHIOTICAE SERRANICAE SPARIOAE GOBITOAE SCORPAENTEAE TP IGLIDAE UNIDENTIFIED	NUMBER LENGTHS LIMI) NO.  10TAL MEAN, MEAN PANGE MEAS. EGGS  SAMPLING OFPTH 10-33M  2 2 26.1 23.5-28.7 TL  1 1 1.0.C  1 1 1.2.S  5 5 5.P 5.1- 6.5 SL  1 1 5.2  1 1 7.3 SL  1 1 7.3 SL  1 1 5.C SL  3 3 3.8 3.7- 3.9 NL  6 6 4.7 3.7- 6.8 SL  1 1 3.5 SL  1 1 5.5 SL  CYCLOTHONE SP.  SYNDLONT ICAE OPHICITIONE SCREAKNICHE LABRICAE OR SCAPICAE SCORPAENICHE LABRICAE LABRI	NO. PER 10M LAFVAE EGGS 0.7 0.3 2.0 0.3 2.9 0.9 1.5 0.6 0.6 0.3 1.6 1.0 0.7 2.9 1.5 5.2 0.6
		• • • • • • • • • • • • • • • • • • • •	
M 5 20 04 FIREMOUS CANTENA FIREMOUS CANTENA FIREMOUS PELL'S MADERFASIS HYGORHUM PENNIT! LAMFANYCTES SP. MYCTEPHIM AFF INF UFFERYCIS SP. HEMANITHIA'S VIVANUN LETCSTEMUS XANTHIBUS PEPPILIS TRIACANTHUS PETRICIS CARGINAS RCTHUS OFFILLATUS CITEAS CETLATUS CITEAS CHITAS ARGITER INS SYMPHURUS SP. ACOIT IDNAL LARVAF CAUGHT	1   5.°   SL     3   3   6.8   5.9   8.4   SL     1   1   7.6   SL     2   2   5.2   4.6   5.8   SL     5   5   6.7   4.6   9.4   SL     2   2   5.°   5.7   6.1   SL     1   1   3.7   SL     5   5   6.7   4.6   9.4   SL     2   2   5.°   5.7   6.1   SL     3   1   1   3.7   SL     4   4   11.7   10.0   12.5   SL     5   5   6.7   4.6   9.4   SL     6   7   8   8   8     7   8   8   8     8   9   8   8     9   9   9   9   9     9   9   9   9	SAMPLING DEPTH 18-33M  E 8 7.7 4.6-11.8 TL  6 6 15.1 10.0-19.5 TL  5 4 5.4 4.6-6.4 SL  4 4 5.3 4.5-6.1 SL  2 2 7.5 7.1-8.0 SL  2 2 4.7 4.6-4.9 SL  3 3 5.9 5.1-6.6 SL  2 2 3.8 3.5-4.2 NL  3 3 4.3 3.7-5.1 SL  13 13 5.2 3.3-6.8 SL  2 2 5.6 5.3-6.0 SL  3 3 6.2 3.3-11.9 SL  2 2 5.6 5.3-6.0 SL  3 3 7.7 5.1 SL  CYCLOTHONE SP.  SYNODON TICAE  CPHICIIOAE  SERRANIOAE  SERRANIOAE  SPARICAE  LABRIDAE OR SCAPICAE  PHOLICAE  STRUMATE ICAE  SCUPPAEN ICAE  UNIDENTIFIED	2.7 2.0 2.2 1.0 0.7 1.0 0.7 0.7 1.0 5.8 1.3 1.3 0.7 1.0
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
N 1 20 04  REPENDENTE A TYPANNIS  LEICSTOMUS XANTHIMUS  MICEPPOGON UNCULATUS  PEPRILUS INTACANTHUS  PRINCHUS CAPILINUS  PARALICHTHYS DENTATUS  ACOIT INNAL LARVAE CAUGHT	SAMPLINC OEP TH		0.9 0.6 0.3 0.6 0.3 4.2

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CPUISE DATE 066 3 1966 STA. D.M. SPECIES ANALYZED N.2. 27 04 R PERIORATIA TYRANNUS ANCHIA FERSETUS NYCHORUM AFFINE LICICSTIMUS MANTHUNUS PERFILUS TRIACANTHUS PRICNOTUS CARCLINIS CITEARICHTHYS ARGITERONS PARALICHTHYS OFNIATUS ADDITIONAL LARVAE CAUGHT	**************************************	**************************************
R 3 20 04  R PE VOORTIA TYFANNIS FTRIMEUS SADINA ANCHOA HEPSETUS ENCRAULIS FUR YSTOLF MYCTORHIDAE FERATOSCOPELUS MAMBERENSIS CERATOSCOPELUS MAMBINCI HYGEPHIM PENDITI LOPHUS AMERICANUN HEMANTHIAS VIVANUS LAPIMUS FASCIATUS LEICSTOMIS XANTHUNUS MICEPPRIGO UNPULATUS PERICATUS PERICATUS CARTINIS CITHAR ICHTHYS ARCIIFRONS MCNCLENE SESSILICANUA PARMICHTHYS CENTATUS SCCENTHALMUS ROUNSUS ADDITIONAL LARVAE CAUGHT	SAMPLINC DEP TH	SAMPLING CEPTH 18-24M 4 4 15.2 14.4-16.C TL 3.4 73 73 31.3 26.2-40.6 TL 26.9 0.6 7 7 27.7 8.4-39.2 TL 4.5 1 1 6.9 SL 0.2 0.6 0.3 1 1 5.9 SL 0.2 2 1 3.9 SL 0.3 1 1 5.2 SL 0.3 1 1 5.2 SL 0.2 4 4 8.5 6.7-10.1 SL 3.4 1 1 3.4 SL 0.5 7 1 1 0.2 1 1 13.1 SL 0.5 5 5 9.1 6.9-11.4 SL 0 4.2 C.C 2 2 3.2 3.1-3.3 SL 0.3 SYNOCONT IDAE PARALEPID I CAE OPHICIIDAE SERRANIDAE CAR ANGLOAE SPAR IDAE TRIGLIDAE
OPHICH THUS GOMEST  REPORTIZE TYPANNIS  FIREMEUS SADINA  ANCHOA MEPSETUS  FOR FAULTS EUPYSTOFF  CERATISCO PELLIS MADERENSIS  CEPTOSCOFELLIS MAMBINCE  DIAFHUS SP.  HYCOPHUM BENDITI  LAMPANYCTUS ALATUS OF PHOTONOTUS  MYCTOPHUM AFFINE  UFFIFYCTS SP.  HEMANTHIAS VIVANUS  LFIESTOMUS XANTHURUS  MENICIPPHUS OP.  AUXIS SP.  PEPPILUS TPIACANTHUS  PRICHTUS CAPOLINUS  CITHARICH THYS ARCTIFPONS  CYCLOPSETTA FIMBRIATA  EIRPUS MICPOSTOMUS  PARALICHTHYS DENTATUS  SYMFHJRUS SP.  AUDITIONAL LARVAE CAUGHT	2 2 8.0 6.9- 9.1 St 2 2 3.5 2.8- 4.3 Nt 1 1 3.2 St 1 1 4.4 St 2 2 6.9 6.7- 7.1 St 38 28 2.5 1.4- 8.2 St 4 4 6.6 5.9- 8.0 St 5 5 5.1 2.6-11.1 St 1 1 4.5 3 3 8.7 4.6-11.2 St 3 3 4.4 3.7- 5.6 St 10 5 7.2 4.1-11.6 St	SAMPLING OEPTH 18-33M  0.3  3 3 12.2 6.4-15.6 TL  7 7 11.1 10.5-11.7 TL  2.3  1 1 6.6  SL  1.0  0.3  1 1 7.7 SL  0.3  1 1 7.7 SL  0.7  1 1 4.3  NL  0.9  2 2 4.3 3.7-5.0 SL  1.0  0.7  1 1 4.3  SL  0.9  2 8 26 3.5 2.3-6.0 SL  2 0.9  2 8 26 3.5 2.3-6.0 SL  2 2 2 12.1 8.3-15.8 SL  2 2 2 12.1 8.3-15.8 SL  3 3 3 9.0 4.3-17.1 SL  SYNODONTICAE  BREGMACERCTICAE  OPHIOLIOAE  SERRANIDAE  LABRIDAE  LABRID

CRUISE DATE C66 3 1966 STA. 5 M SPECIES ANALYZED N 5 27 04 MYCTICHHIDAE	NUMBER LENGTHS (MM) NO. TOTAL PERS. MEAN. PANCE MEAS. FGCS SAMPLING DEPTH C-15M	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN PANGE MEAS. EGGS SAMPLING CEPTH 18-23M 1 1 4.3 SL	NO. PER 10M LAFVZE ECGS
CEOATTSCHEELS WAMERENSES CEOATTSCHEELS WAMERENSES DIA FRUS SP. LEWEANYCTUS SP.	44 44 6.4 4.7-10.2 SL 48 48 4.9 3.8- 7.1 SL 3 3 5.3 5.0- 5.8 SL	50 50 6.1 3.7- 5.7 SL 55 55 4.9 3.6-10.7 SL 5 5 6.8 4.3-12.1 SL 2 2 3.4 3.1- 3.7 SL	29.9 22.7 2.6 0.7
LAMPANYCTUS ALATUS OP PHOTONOTUS LAMPANYCTUS ATER LAMPANEAS P. MYCTOPHUM DRIUSTRIISTRIS MYCTOPHUM DRIUSTRIISTRIS	3 3 4.1 4.0- 4.2 St 1 1 5.3 St	1 1 4.5 SL 1 1 7.4 SL 1 1 6.2 SL 1 1 6.0 SL	1 • ? C • 6 O • 3 O • 3
HEMANTHIAS VIVANUS ALXIS SP. KATSUWONUS PELAMIS	2 2 6.2 5.3- 7.1 St 6 6 4.6 4.1- 5.1 St 1 1 5.6 St	2	1.3 4.5 0.3
THUMNUS THYNNUS PRIMIDTUS CAROLINIS	3 3 4.2 3.0-5.3 SL	1 1 7.7 St 9 9 5.6 3.7-L0.7 St	0.3 1.0 3.3
RITHUS OF ALLANUS CITHARICH THYS ARCTIFRENS FIRRIPIS MICROSTOMUS	1 1 7.2 SL 1 1 6.0 SL	1 1 3.7 SL	D.3 C.3
SYMEHURUS SP. A DDI TIDNAL LARVAE CAUGH	SYMODON I TO AE CHLOROPPIHAL MIDAE PAPALE PIDIDAE BREGMACEROTIDAE SERRANIT LE GRAMMI STIDAE CAPANG II LE ECAPACENTEI LAE LABRIDAE OP SCAR TOAF MUGILICAE SPHYPAENIDAE GOBLIDAE GOBLIDAE GE MPYLIC LE SCORPAENIDAE UNIOENTIFITO	1 1 5.6 SL  CYCLOTHONE SP. STOMIATIONE SYMDOON TIDAE PARALEPIO ILME BREEMACE POTIDAE CAPRO IDAE SER RANI DAE APDGONIONE CAR ANGIONE CAR ANGIONE CAR ANGIONE CAR ANGIONE COR YPHAEN ILME POMNOEN TRIDAE LABRICAE OR SCARIENE CALLIDNYMID ME GOB I IDAE GOMPYLIDAE SCORPAEN I LORE UNI DENT I FIELE	D .3
P 1 21 24	SAMPLING DEPTH O- 6M		
P 2 21 04 ANCHOA MEPSETUS PARALICHTHYS CENTATUS ADDITIONAL LARVAE CAUGH	SAMPLING OFFTH D- 6M		
	L L 16.6 TL C T UNIDENTIFIED		C.1 O.1 O.C
• • • • • • • • • • • • • • • • • • • •	L L 16.6 TL C C UNICENTIFIED		0.1
	L L 16.6 TL  I UNICENTIFIEC  SAMPLING CEPTH 0- 6M  1 1 5.3 SL 0		0.1
P 3 21 04 PARALICHTHYS CENTATUS ADDITIONAL LARVAE CAUCH	L L 16.6 TL  I UNICENTIFIEC  SAMPLING CEPTH 0-6M  1 1 5.3 SL D  SPARICAE UNICENTIFIEC		0.1 0.0
P 3 21 04 PARALICHTHYS CENTATUS ADDITIONAL LARVAE CAUCH	1 1 16.6 TL 1 C V UNICENTIFIED  SAMPLING CEPTH 0-6M 1 1 5.3 SL D  SPARICAE UNICENTIFIED  SAMPLING CEPTH 0-15M  2 2 4.6 4.5-4.8 TL 1 1 9.4 SL 6 6 7.0 4.0-12.2 SL 2 2 11.5 11.8-12.0 SL		0.1 0.0

TABLE 3. (continued)	68		
COUISE DATE D66 3 1966 STA. DM SPECIES ANALYZED P5 21 04	NUMBER LENGTHS (MM) NO. TOTAL MESS, MEAN RANCE MEAS. EGGS	**************************************	ND. PER 10 M LAPVAE EGG S
MYCTOPHIDAE CERATOSCOPELUS MADEPENSIS CERATOSCOPELUS MARMINCI CIAPHIS SP. LAMEANYCTUS SP. LAMEANYCTUS NOBILIS	SAMPLINC DEP TH C-15M 2 2 4.1 4.0- 4.3 SL 3 3 6.C 5.D- 7.4 St 40 40 4.9 3.1- 7.9 SL 6 6 4.9 4.3- 6.2 SL 2 3.1 3.1- 3.1 SL	SAMPLING DEFTH 18-33M 4 4.C 3.7- 4.3 SL 28 28 5.6 3.6- 7.9 SL 19 19 5.6 3.7- 5.3 SL 2 2 4.7 4.7- 4.7 SL 2 2 5.5 5.3- 6.6 SL	1.9 1.0 21.3 8.1 1.3 0.7
LAMFADENA SP. MYCTOPHUM OPTLISTRISTRIS MYCTOPHUM SELENOPS ACTICSCOPELUS SP. HEMANTHIA S VI VANUS PLECTPANTHIAS GARNIPELLUS	1 1 5.8 SL	2	0.7 0.3 0.3 0.3 1.3 0.7
KATSUMONUS PELAMIS BOTHUS DO ELLATUS SYACTUM PAPILLOSUM A DOLTIDNAL LARVAE CAUGH	2 2 4.5 4.5- 4.6 SL 4 4 9.3 3.3-19.5 SL 1 1 6.2 SL HT CYCLOTHONE SP.	5 5 5.6 4.4- 6.9 SL	0 •7 2 • 9 0 •3
	VINCIGUERRIA SP. PARALEPITICAE BREGMACEFOTIOAE EXDCOETILAE SERRANILAE GRAMMISTIDAE CARANGILAE CORYPHAENICAE LABRIDAE OR SCARICAE ACANTHURICAE UNIDENTIFIED	STOMIATICAE CHLOROPH THALMIDAE PAR ALEPIOTICAE SERRANIDAE GRAMMISTICAE CHAETDOONTICAE PDMACENTRICAE LABRICAE OR SCARICAE GOBITOAE ACANT HURICAE SCORPAENITAE	

SERRANIDAE
CRAMHISTICAE
CHAETODONTICAE
PDMACENTRICAE
LABRICAE OR SCARICAE
GOBIIDAE
ACANTHURICAE
SCORPAENICAE
UNIDENTIFIED

TABLE 3. (continued)	69		
COULSE DATE THO 5 1966 STA. D.M. SPECIES ANALYZED A 1 12 05 CLUSEA HARRINGUS HAP ENGUS GADLS MORHIA APPOLYTES SP. LIFERIS INQUILINUS CITHARICHTHYS ARCITERONS 1 THANCA FERRUCINEA OSELDOPPELRONETES ZMERICANUS ADOLT IDNAL LARVAE CAUGHT	NUMBER LENGTHS [MM] NO. TOTAL MEZS. MEAN RANGE MEAS. EGGS SAMPLINC CEPTH C-6M 2 2 36.2 35.8-36.7 TL 2 2 3.9 3.5-4.2 SL 0 8 8 26.2 8.7-41.6 TL 133 43 4.4 3.0-6.7 TL 4 11 4.C 3.1-5.6 SL 63 25 4.8 3.2-7.2 SL OPHIDIICAE BLENNIILE STRCMATEICZE	NUMBER LARVAE ************************************	NO. PER LOM LAFVARE EGGS 0.2 0.2 0.0 1.0 16.1 0.5 2.5 7.6
	COTTIDAE UNICENTIFIED		
A 2 12 05 CLUPPA MARENCIS MARENGUS FNOFFLYPOLS CIMERIUS GADLS MORMUA AFMICHTES SP. SICERER SCOMPRUS LIPARIS ATLANTION LIPARIS TROUTLIND CITHARICH THYS ARCTIFRONS HIFFOGLOSSOLICES PLATESSOLICES LIMANDA PEPPUGINEA PSEUDOPLEUROMECTES AMERICANES AUDITIONAL LARVAF CAUCHT	SAMPLING CIPTH 0-15M i 1 40.2 TL i 1 15.2 TL  40 21 4.1 3.1- 6.5 TL 1 2 2 7.6 7.2- 8.0 SL 37 32 4.0 2.5- 6.2 SL 289 25 4.2 3.2- 6.6 SL BLENNILLE	SAMPLING DEPTH 18-24M  1 0 2  1 1 8.6 TL 51 25 4.8 3.2-6.9 TL  27 22 3.7 2.9-5.6 SL 176 25 4.6 3.3-7.8 SL 8LENNIIOAE	0.3 0.0 0.0 0.3 0.3 0.0 0.3 0.2 20.5 0.3 0.6 15.7 117.2
A 3 13 05	COTTIDAE  SAMPLING DIPTH 0-15M	COTTIDAE  SAMPLING DEPTH 16-73M	
ENCLELYOPUS CIMBRAIUS CADLS MERHUA AMMODATES SP. LICAPES INQUILLINUN CITHARICH THAS ARCHIFFONS LIMINIOA FERRICINFA PSELDIDRE LRONGETES AMERICANUS A DOITTINNAL LARVAE CAUGHT	0 0 1 1 21.4 TL 12 9 5.2 4.1- 7.5 TL 1 58 25 3.8 2.9- 5.1 SL	1 1 24.7 TL 4 4 7.9 7.0- 9.7 TL 36 25 3.6 3.1- 4.0 SL 5 5 5 5.5 4.2- 7.2 SL BLENNIIDAE UNIOENTIFIEE	0.0 0.3 0.0 1.0 0.6 4.9 0.3 12.0 20.4
A 4 13 05 CLUFFA HARENGLS HAPENGUS CADUS MO HJA MELANDG PAMMUS AEGLEFINUS GLYPTTICEP HALLS EVANGLOSSUS HIPFOGLOS SOLDES PLATESSOLDES LIMANDA FERPIUGINEA PSEUCOPLEUPON FCTES AMERICANUS ACOLTIONAL LARVAE CAUGHT	SAMPLING DEP TH C-15M  1	SAMPLING CEPTH 18-33M  10 10 5.8 5.1- 7.0 SL 0 3 3 4.5 4.2- 4.9 St 0 16 9 5.2 4.2- 6.C St 10 7 7.3 6.2- 9.4 SL 76 25 4.C 3.1- 5.1 SL 5 4 5.0 4.2- 6.1 SL ANGUILLA ROSTRATA BLENNIIOAE UNIOENTIFIEC	0.3 3.9 C.C 6.7 0.0 8.6 3.3 58.6 2.0
A 5 13 05 GADLS MORHUA MELANDGRAMMUS AEGLEFINUS ANMORTES SP. LIPARIS ENQUILINUS GLYFFOCEPHALUS CYMD CLOSSUS HIPFOGLOSSOINES PLATESSOINES LIMANDA FERRUCINEA ACOLITIONAL LARVAE CAUCHT		SAMPLING TEFTH 18-33M 4	1.9 0.0 17.2 c.c 0.3 0.3 15.0 7.0 35.4
A 6 13 05  FNCHELYOPLS CIMBRIUS  CACLS MOPHLA  MELANGRAMMUS AEGLEFIAUS  POLLACHIUS VIRENS  A MYCOYTES SP.  LIPARTS INQUILLINUS  GLYSTOCEPHALUS CYMPOLOSSUS  HIPPOGLOSSOLOES PLATESSOICES  LIMANDA FERRUCINEA  PSELOOPLEURCNECTES AMERICANUS  ADOLITIONAL LAPVAE CAUGHT	SAMPLINE OFF TH C-15M  1 1 2.0 16 16 8.9 5.1-12.8 SL 0 63 63 6.2 3.9-12.7 SL 0 2 2 9.5 9.5 9.5 5. 0 1 1 39.2 1 2 8.8 7.8-9.8 TL 34 21 5.1 3.8-5.9 SL 22 15 9.4 5.1-16.4 SL 17 17 4.7 3.2-6.1 SL 1 1 5.0 SL	SAMPLING CEPTH 18-33M  1 1 2.0 5L 27  9 9 7.6 5.8-9.2 SL 0  57 56 6.4 3.9-11.9 SL 0  22 17 5.0 4.1-5.7 SL  11 11 11.5 6.7-16.0 SL  16 16 4.3 3.3-5.4 SL  UNIOENTIFIEO	0.6 9.0 7.8 0.0 27.9 0.0 0.7 0.6 0.3 1.0 17.5 10.3 10.4

TABLE 3. (continued)	70		
CRUISE DATE C66 5 1966 STA. D 4 SPECIES ANALYZED A 7 13 05	NUMBER LENGTHS (MM) NO. IDTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH C-15M	*********** LARVAE **********  NUMBER LENGTHS [MM] NO. TDTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING EEPTH 18-33M	NO . PER LOM LAPVAE EGGS
MYCTOPHIDAE BENTHOSEMA GLACIALE GADLS MOPHUA MSLANDGRAMMUS AEGLEFINUS PELLACHIUS VIFFNS SLYFTHOEPHALLE CYNNOCCSSUS HIPFHOLDSSOINES PLATESSDIDES LIMANNA FERRUCINEA ADDITIONAL LARVAF CAUGHT	5 5 4.3 3.7- 5.0 SL  R 7 8.0 5.3-12.0 SL 0  5 4 6.7 5.6- R.5 SL 0  2 2 4.2 3.7- 4.7 SL  4 4 10.5 6.3-16.2 SL  SCCRPAENICIE	27 26 7.1 4.6-11.C SL 0	1.7 0.7 9.1 0.0 10.5 0.3 1.3 3.5 0.7
E 1 13 05 GADLS MORHUA UPOPHYCIS CHUSS MEPIUCCIUS BILINEAPIS AMMODYTES SP. SCOBER SCOMPRUS LIPARIS INQUILINUS PSELDDPLEURONECTES AMERICANUS ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH (- 9M 2 2 8.6 8.4- 9.1 St 0 1 1 4.6 Nt 0 7 7 35.7 16.7-60.5 Tt 109 69 63 4.4 3.3-10.0 Tt 71 25 7.3 6.0- 9.2 St RLENNIICAE COTTIDAE UNIDENTIFIED		0.4 0.C 0.2 0.C 1.3 0.0 15.£ 12.5
• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
P 2 13 05 FOLELYTOUS CIMBRIUS GADLS MORHUA ANMEDYTES SP. SCOMBER SCOMBRUS LIPARIS INQUILLINUS GLYFTOCEPHALUS CYNTOLOSSUS LIMANDA FERRUGINEA PSELDOPLEURONECTES AMERICANUS A DOITTONAL LARVAE CALCHT	SAMPLING DEPTH C-15M 2 2 2.8 2.7- 2.8 SL 0 9 7 14.2 7.0-40.0 SL 0 6 6 19.1 12.7-27.5 TL 1 1 5.1 3.5- 7.2 TL 1 1 6.2 SL 13 13 5.5 3.6- 8.5 SL 4 4 6.7 6.1- 7.5 SL ELENNIICE COTTIDAE		0.6 0.0 2.7 0.0 1.8 0.0 46.4 3.9 0.3 3.9
P 3 13 C5 FINC FELLYDRUS CIMBRIUS GADLS MORHUA MELANDGRAMMUS AFGI FFINUS ANMICHYTES SP. SCOMMARE SCOMMARUS LIPAPIS INQUILINUS GLYFTOCEPHALLS CYNDOLOSSUS HIPFORLOSSOLOES PLATESSOLDES LIMANDA FERRUCINEA PSELDDPLE LRONGCTES AMERICANUS ADDITIONAL LARVAE CAUCHY	SAMPLING DEPTH C-15M 6 6 2.6 2.2- 2.8 SL 0 16 16 9.0 3.5-18.6 SL 0 7 7 7.1 4.6-10.4 SL 0 3 3 19.8 18.7-21.2 TL  24 20 5.2 3.8-10.0 TL 27 25 5.6 4.3- 7.0 SL 2 2 8.7 7.9- 9.5 SL 69 25 4.2 2.7- 7.7 SL 1 1 6.4  BLENNIICAE CCTIDAE	4 4 E.6 5.3-12.7 SL 0	2.0
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • •
B 4 13 05 ENCHELYPOUS CIMBRIUS GADLS MOPHUA MELANJGRAMMUS AEGIEFINUS SICEMER SCOMPRUS LIPARIS I NOULLINUN GLYTTOCEPHALUS CYNJELOSSUS HIPFOGLOSSOIDES PLATESSOIDES LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUCHT		SAMPLING DEPTH 16-33M 2 2 2.4 2.4-2.4 SL 12 2 2 6.1 5.3-6.8 SL 0 0 1 1 6.4 IL 36 32 5.5 4.2-7.2 SL 5 4 10.2 7.7-12.5 SL 84 25 5.6 4.1-7.7 SL 8LENNIIDAE	1.3 7.5 1.0 0.0 0.3 0.0 0.0 2.2 0.3 18.4 2.6
P 5 13 05	SAMPLING DEPTH C-15M	SAMPLING CEFTH 18-23M	
ENCHELYMBUS CIMBRIUS CADLS MOR HIA MELANOGRAMMUS AFGLEFINIS AMMEDITES SP. SCENBER S COMERUS LIPARIS I FOULLIL NUN CLYPTHICE HALLYS CYNHIGLEISSUS HISTOCKS SCIEFS PLATESSDICES LIMANDA FERRUGIVEA	1 1 1.8 SL 29 1 1 1.8 SL 29 1 1 1.8 SL 29 1 1 1 30.0 TL 31 29 5.1 4.2-6.5 SL 3 1 8.3 SL 219 25 5.4 3.3-7.8 SL	5 5 2.2 2.0- 2.4 SL 29 4 4 7.8 4.4-11.8 SL 1	2.0 18.4 1.3 C.5 1.3 0.0 0.3 0.0 1.0 0.6 21.0 2.2 139.4

	71	
TABLE 3. (continued)  CPUTSF PATF  OA6 5 1966  STA. D M SPECIES ANALYZED  P. 6 13-3-5	**************************************	NO. PER LOW LARVAE EGG S
ENCHEL YOP LS CIMBRIL'S CARLS MARHUS MELANARA PHUS AFRIEFINUS PRILACHHIS VIPENS SCENBER SCOMBRUS GLYPTICEP HALL'S CYNAGLOSSUS HIFROGLOSSOIDES PLATESSAITES I IMANDA FEPRUGINFA ACOLT TONAL LARVAF CAUGHT	1 1 2.0 St 63 15 0 3 3 6.6 5.7- 7.9 St 0 0 1 1 7.2 St 0 0 1 1 7.2 St 0 0 1 1 7.2 St 0 0 0 1 1 7.2 St 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
P 7 13 05  RENTHOSCHA SP.  RENTHOSCHA SP.  RENTHOSCHA GI ÆCI ÅLF  ENCHELYOPUS CTM BRIUS  MELANIGRA MUS AEGLEFINUS  PCLI ACHTUS VIPENS  GLYFTOCEPHALUS CYNOCLOSSUS  1 TMANDA FERRUGINFA  A COIT TINA I LARVAE CAUGHT	SAMPLING OFF TH 0-15 M	0.7 1.3 0.3 6.6 2.0 0.0 0.3 C.T 1.3 1.6
C 1 14 05  FNCHFLYCPUS CIMEPIUS  AMMODYTES SP.  SCENBER S SCHMBRUS  LIMANDA FERRUGINFA  PSEUCOPLEURONECTES AMERICANUS  A DOLLTIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M 3 4 4 24.3 14.7-38.7 TL 344 6 6 6.5 4.7- 7.9 SL 3 3 5.5 4.8- 7.3 SL ANGUIELZ RESTRATA COTTIDAE	0.0 0.9 1.2 0.0 104.2 1.8 0.9
C 2 14 35 APMONYTES SP. SCEMBER SCOMBEUS LIPARIS INQUILINUS LIMANDA FERRUCINEA	SAMPLING DEPTH C-15M 1 1 57.8 TL 1 2 3 3 6.3 5.3- 7.0 TL 2 2 7.2 6.1- 8.2 SL	0.3 0.0 49.7 0.9 0.6
C 3 14 05 FACHELYOPUS CIMBPIUS SCEMBER SCOMBPUS LIDARIS ENOUTLINUS GLYPTOCEPHALUS CYNOGLOSSUS LIMANDA FERPUCINFA ADDITIONAL LARVAE CALGHT	SAMPLING OFF TH C-15M SAMPLING DEPTH 18-24M T 3.2 2.0- 3.8 SL 0 1 2.7 SL 0 29  1 1 3.6 TL 1 3.6 TL 2.7 SL 84 SL 0 1 1 2.7 SL 84 SL 0 1 1 3.6 TL 29  3 2 5.7 5.2- 6.2 SL 4 3 6.8 6.1- 7.7 SL 84 SL 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
C 4 14 05 FACEFLYOPUS CIMBRIUS GARLS MORHUA SCOMBER SCOMBRUS GLYFTROEREALUS CYNDICLOSSUS LIMANDA FERRUCINEA A ROIT JONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 9 8 3.C 2.2- 3.8 SL 0 1 4 4 3.3 2.5- 4.7 SL 0 1 1 5.4 SL 0 19  I 1 6.8 SL 69 21 5.7 2.7- 9.0 SL UNIDENTIFIED  UNIDENTIFIED	0.3 0.0
C 5 14 25  FNCHELYOPES CIMBRIUS  GADUS MAR HIA  ANMONTES SP.  SCOMBER SCOMBRUS  PEFFILUS TRIACANTHUS  GLYFTOCEPHALUS CYNOCLOSSUS  LIMANCA FERRUCINSA  ADDITIONAL LARVAE CAUCHT		0.3
C 6 14 05  ENCHEL YOP US CIMBRIUS  CACUS MORHO A  SCOMER SCOMERUS  GLY STOCEPHALUS CYNTICLOSSUS  LIMANDA FERRUCINEA  ADOLT JONNA LARVAE CAUGHT	SAMPLING CEPTH 0-15M 2 2 2.4 2.0- 2.8 SL 0 2 2 2.5 2.3- 3.4 SL 0 1 1 5.2 SL 0 3 1 5.0 SL 60 16 6.0 4.2- 9.0 SL UNIDENTIFIED  SAMPLING OFFTH 1E-23M 2 2 2.5 2.3- 3.4 SL 0 1 5.2 SL 0 UNIDENTIFIEC	1.3 C.C 0.3 O.C 0.0 0.3 1.0 49.3
C. 7. 14 C5 EFCEFEYOUS CIMBRIUS CADES MORBHUA MELANGORAMHUS AEGUEFINUS GLYSTOCEPHALUS CYNOLICSSUS LIMANOA FERRINCINEA APOLTIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M	0.7 1.3 1.3 0.0 1.0 C.C 24.7 150.3

TABLE 3. (continued)	//	
CRUISE DATE P66 5 1966 STA. D.M. SPECIES ANALYZEC C.8 14 05	NUMBER LENGTHS (MM) NO. NUMBER LENGTHS (MM1 NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15M SAMPLING DEPTH 1E-33M	NO. PER LOM LAFVAE EGGS
BENTHOSCMA SP. RENTHOSEMA GLACIALE FACHELYOPUS CIMBRIUS GADLS MCPHUA MELANGRAMMUS AEGLEFINUS	1 1 5.5 SL  3 3 6.8 6.5- 7.2 SL  0 1 0 3 3 6.5 4.7- 7.6 SL 0 0 1 1 4.2 SL 0	0.3 1.0 0.0 0.3 1.0 0.0 0.3 C.C
APTOYTES SP. LIMANDA FERRUCINEA ACDITIONAL LARVAE CAUGHT	2 2 36.1 33.3-39.0 TL 1 23.8 TL 4 7.6 6.0-9.4 SL 4 1 6.5 SL	0.9
F 1 16 05 FACHELYCPUS (IMBRIUS UPOPHYCIS SP. S COMBER S COMBRUS L IPARIS 1 NOULLINUS L IMANDA FERRUGINEA PSELDOPLEURON FOTES IMERICANUS	SAMPLING DEP TH C-6M 7 7 3-1 2-2-3-5 SL 0 1 1 11.0 NL 2752 1 1 3.7 TL 11 1C 5.0 3.7-6-2 SL 2 1 4.2 SL	0.8 0.0 0:1 0.0 333.5 0.1 1.3.
ADDITIONAL LARVAE CALGHT		
O 2 16 05  FACHELYOPUS CIMBRIUS  SCEMBER SCOMPFUS  LIPERIS INQUILINUS  LIMENCA FERRUCINEA	SAMPLINC CEPTH 0-6M 11 11 3.2 2.2-5.4 SL 0 5235 1 1 4.1 TL	1.3 C.C 0.0 634.5
ADDITIONAL LARVAE CAUCHT	176 25 5.5 3.9- R.1 SL BLENNII[/E	21.3
D 3 16 05 FNC FELYOP LS CIMBRIUS AMMODYTES SP. SCCMBER SCOMBRUS LIMANDA FERRUCINEA	SAMPLING DEPTH 0-15M 4 4 3.1 2.4- 3.9 SL 7 1 1 41.8 TL 750 207 25 5.1 3.9- 6.7 SL	1.2 2.1 0.3 0.0 227.3 62.7
ADDITIONAL LAPVAE CAUGHT	BL ENNT IC AE	
D 4 16.05		
ENCHEL YOP US CIMARIUS GADUS MORHUA	SAMPLING DEPTH 0-154 20 17 3.6 3.0-4.2 SL 8 L 1 5.4 SL 0	6.1 2.4 0.3 0.0
MELANORRA MMUS AEGLE FINUS SCEMPER SCOMRPUS LIPARIS INQUILINUS LIMANDA FERRUCINEA	1 1 6.2 SL 0 66 4 4 4.8 4.3- 5.2 TL 613 25 5.0 3.7- 5.9 SL	0.3 0.0 2C.C 1.2 165.7
D 5 16 C5 FNCHELYOPUS ((MBRIUS	SAMPLING DEPTH 0-15M SAMPLING DEPTH 1E-24M 12 12 4.3 3.3- 9.5 SL 0 12 12 4.2 3.3- 6.5 SL 0	5.4 0.0
CADLS MORHUA SCOMBER SCOMBRUS	2 2 6.6 6.5- 6.7 SL 0 42 29	5.6 0.0 0.6 0.0 0.0 17. 8
LIF/RIS I AQUIIINUS GIYFTOCEPHALLS CYNDGLOSSUS LIMANDA FERRUCINEA AODITIONAL LARVAE CAUGHT	2 2 8.5 8.5- 8.5 SL 2 1 8.3 SL 624 25 4.8 3.9- 5.7 SL 8LENNIIOAE UNI DENTIFIEC	0.2 0.9 291.3
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O 6 17 C5 ENCTFLYDPUS CIMBRIUS GAOLS MORHUA	SAMPLING DEPTH 0-15M SAMPLING DEPIH 18-33M 2 2 3.7 3.5- 3.9 St 0 1 1 4.9 St 0 3 3 6.7 4.3- 9.2 St 0	0.9 0.C 110 0.0
AMMODYTES SP. SCCMBER SCOMBRUS	2 2 32.5 31.0-34.0 TL 6	0.7
GLYFTDCEPHALLS CYNDGLOSSUS LIMANDA FERRUCINEA ADDITIONA4 LARVAE CAUGHT	6 5 6.7 5.7- 7.7 SL 6 3 6.7 5.3- 8.C SL 471 25 5.2 3.4- 6.7 SL 398 25 5.4 3.4- 8.0 SL BLENNIIOAE	3.8 273.9
0 7 17 05 ENCHEL YOPLS CIMBRAUS SCOMBER SCOMBRA	SAMPLING DEPTH 0-15M  SAMPLING DEPTH 18-33M  0 3 3 2.5 2.3- 2.7 SL 0  2	1.0 0.C 0.0 0.7
GIYFTOCEPHALLS CYNOGLOSSUS LIMANDA FERRUCINEA AOOITIDNAL LARVAE CAUGHT	2 1 7.7 SL 126 25 5.1 3.4-6.7 SL 156 25 6.1 4.2-8.9 SL UNIOENTIFIED	0.7 £9.8
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0 8 17 05 MYC 10PHID 45	SAMPLING DEPTH 15M SAMPLING DEPTH 18-33M	0.3
BENTHOSOMA SP. ENCHELYOPLS CIMBRIUS	l 1 6.4 SL	0.3
MELANIGRAMMUS AEGIFFINUS GLYFTICEPHALUS CYNDCLOSSUS	1 1 9.1 St 0 0 0 0 0 0 0	0.3 0.3 0.3 C.C
HIPFOSLOS SOLDES PLA 16 SSOLDES LIMANDA FERPUCINEA	1 1 ±0.0 SL 38 25 7.3 4.7-11.2 SL 24 22 7.5 4.0~±0.0 SL	0.3 19.4

TABLE 3. (continued)  CRUISE DATE	********* LAR VAE ********	********	2
DEE 5 1966 STA. D.M. SPECIES ANALYZED E 1 13 05 ENCHELYDPUS CIMBRIUS AMMONTES SP.	NUMBER LENGTHS (MMI ND. TOTAL MEAS. MEAN RANGE MEAS. FGCS SAMPLING CEPTH 0-6M 1 1 21.2 2 2 40.4 31.9-48.5 TL	NUMBER LENGTHS (MM) NO. TCTAL MEAS. MEAN FANGE MEAS. EGGS	ND. PEP LOME LARVAE EGGS
SCC MBER SCOMBRUS SCGFHTHALMIS AQUINUS LIMANDA FERRUGINEA PSEUDOPLEURON ECTES AMERICANUS ADDITIONAL LARVAE CAUCHT	3 3 2.8 2.7- 3.0 SL 2 2 5.3 4.9- 5.7 SL 14 14 7.7 4.4- 8.9 SL		0.0 136.6 0.4 0.2 1.7
F 2 19 05 ENCHELYPPUS CIMBRIUS CCEBER SCOMARUS SCOPHIAL MUS AD UNUS LIMANDA FERRUCINEA PSENDOPLE UPCNECTES AMERICANES ADDITIONAL LARVAE CALGHT	SAMPLINC CEPTH 0-6M 9 3.3 2.7-4.0 SL 0 4378 1 56 25 6.3 4.6-11.5 SL 2 2 7.9 7.0-8.7 SL UNIDENTIFIED		1.1 C.C 0.0 530.6 0.1 6.8 0.2
E 3 1R 05	SAMPLING DEPTH 0-15 M		
ENCHELYOPUS CIMBRAUS GADLS MORHUA SCEMBER SCOMBRUS LIPARIS INQUILLINUS SCOPHTHALMUS AQUONUS LIMANDA FERRUCINEA	6 6 4.0 2.7- 7.2 SL 1 2 2 7.8 7.5- 8.0 SL 0 2 4 4 4.7 3.9- 5.5 TL 1 1 3.1 SL SL 110 25 5.5 4.6- 6.4 SL		1.8 C.3 0.6 0.0 0.0 73.C 1.2 0.3 23.3
F 4 17 05 ENCHELYDPUS CIMBRIUS GADUS MORHUA SCCMBER SCOMBRUS LIPARIS INQUILINUS GLYFTHCEPHALUS CYNDCLOSSUS LIMANDA FERRUCINFA ACDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 6 6 3.0 2.2- 3.4 SL 0 5 4 4.7 3.9- 5.6 SL 2 1C4 4 3 5.6 5.4- 6.0 TL 3 3 5.3 5.1- 5.8 SL 162 25 5.5 4.1- 7.4 SL UNIDENTIFIED	1 1 5.1 SL 0	3.3 C.3 1.7 C.6 0.0 37.3 1.9 2.4 94.8
E 5 17 05 FACHELYDPUS CIMBRIUS SCEMBER SCOMBRUS GLYPTICEPHALLS CYNDGLDSSUS LIMANDA FERRUGINEA ADDITIDNA4 LARVAE CAUCHT	SAMPLING CEPTH 0-15M		0.5 0.5 0.0 3.5 0.8 110.1
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F 6 17 05 ENCHELYOPUS CIMBRIUS SCCMBER SCOMRPUS GLYFTOCEPHALUS CYNDGLOSSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 11 11 3.2 2.5- 3.8 SL 0 4 4 6.9 5.1- 9.6 SL 191 25 4.2 2.9- 8.7 SL LNIDENTIFIED		5.3 0.0 0.0 1.0 1.7 76.3
E 7 17 05 ADDITIONAL LARVAE CAUGHT	SAMPLINC CEPTH 0-15M	SAMPLING DEPTH 18-33M UNIDENTIFIEC	
E 8 17 C5 FNC FELYDPUS C MBR FU S	SAMPLING DEPTH 0-15M	SAMPLING DEPTH 18-23M	0.0 1.3
		• • • • • • • • • • • • • • • • • • • •	
F L 18 05 SCC PRER SCOMARUS SCOPHTHALMUS AQUDSUS LIMANDA FERRUCINEA	SAMPLING DEPTH 0- 6M  249 62 59 2.9 2.1- 4.3 SL 1 1 4.5 SL		0.0 30.2 7.5 0.1
F 2 18 05	SAMPLING DEPTH D- 6M		
SCC PRE R'SCOMPEUS SCOPHTHAL MUS AQ UOSUS	40 33 3.1 2.4- 4.6 SL		0.0 50.1 4.8
F 3 18 C5			
ENCHELYDPUS CIMIRATUS TALINGA DNITIS SCOMBER SCOMBRUS SCCENTHALMUS AQUINIUS LIMANDA FERRUGINFA +	SAMPLINC CEPTH D-15M  1		0.3 C.C 0.3 0.0 1114.6 1.6 7.3
ADDITIONAL LARVAE CAUCHT			0.6

TABLE 3. (continued)			
CRUISE DATE C66 5 1766 STA. D M SPECIES ANALYZED F 4 18 05	**************************************	************* LARVAE ************************************	NO - PER 10M LAFVAE EGGS
FACHELYCPUS CIMPRIUS SCOMBER SCOMBPUS LIFERIS INDUILINUS SCOPHITHALMUS ACUONUS I IMANDA FERRUCINFA PSELDOPPLEURONECTES EMERICAMUS ADDITINNAL LARVAE CALGH	2 2 4.0 3.6 4.3 SL 0 1528 1 1 10.4 TL 1 1 3.7 St 32 21 6.0 4.4 8.7 St 3 3 7.8 7.5 8.2 SL		0.6 0.C 0.0 463.0 0.3 0.3 9.7 0.9
F 5 19 05 ENCHELYOPUS CIMBRIUS SCCABER SCOMBRUS LIPARIS INDUILINUS GLYSTOCEPHALUS CYNOCLOSSUS LIMANDA FERRUGINEA OSEUDOPLEURON ECTES AMERICANUS	SAMPLING CEPTH 0-15M 5 5 5.6 2.5-15.4 SL 5 47 7 3 7.2 6.3- 9.0 TL 3 3 5.8 5.2- 6.7 SL 356 25 5.9 2.9-10.2 SL	SAMPLING DEPTH 1E-23M 4 4 3.5 2.8- 4.6 SL 0 16 2 2 5.3 5.3- 5.3 TL 4 3 6.0 4.7- 8.2 SL 150 25 6.C 3.7- 5.6 SL L 1 8.7 SL	2.8 1.7 0.0 19.4 2.8 2.2 156.8 0.3
F 6 18 05 ENCHELYCOUS CIMBRIUS GADLS MORHUA SCCARER SCOMARUS LIPARIS I NQUILLINUN GLYPTICEP HALUS CYNIGLOSSUS LIMANDA FERPUGINEA ADDITIONAL LARVAE CAUGHT	SAMPLINC CEPTH 0-15M 1 2.4 SL 0 0 7 3 3 7.1 6.5- 7.8 TL 1 1 5.7 SL 513 25 4.9 3.5- 8.3 SL	S AMPLING CEPT   18-33M  1	0.3 0.0 0.3 0.0 0.0 3.4 1.6 2.0 262.5
F 7 19 05 FNC FELYOPUS CIMBRIUS SCENBER SCOMBIUS GEYPTT CE HALUS CYNOGLOSSUS LIMANDA FRRUCINEA	SAMPLINC CEPTH 0-15M  1 1 1 8.5 58 25 7.3 5.2-10.2 SL	SAMPLING DEPTH 18-23M 0 1 1 1 7.4 St 49 25 6.9 5.5- R.9 St	0.0 0.3 0.0 0.9 0.6 33.7
F L 19-05 SCCMER SCOMPRUS SCCFHTHALMUS ADUNNIS PSEUDIPLE URENECTEN ZMERICANUS	SAMPLING (IEPTH C- 6M 1212 41 4C 2.9 2.2- 5.1 St 3 3 7.6 5.8- 8.7 St		0.0 146.9 5.0 0.4
© 2 19 05 TAUTOGA ONITIS SCOMBER SCOMBRIS SCOPHTHALMUS ADUDSUS PSELDSPLEMONECTEN AMERICANUS	SAMPLINC CEPTH 0- 6M 22 3 2.3 2.1- 2.6 TL 1029 58 53 2.9 2.3- 4.2 St 4 4 7.7 7.4- 7.9 SL		2.7 0.0 124.7 7.0 0.5
G 3 19 05  FNCHELYOPUS CIMBRIUS TAUTOGA ONLTIS SCHMERP SCOMBRUS SCCHHTHALMIS ADUNNUS GLYPTICEPHALLS CYNOGLOSSUS LIMANDA FERRUCINEA PSELDIPLE URCAECTES AMERICANUS ADDIT IDNAL LARVAE CAUGHT	SAMPLING DEPTH C-15M  1 1 3.5 SL 1  18 1 2.5 TL 517  30 25 2.9 2.5- 4.6 SL 1  3 1 3.2 SL 1  12 17 8.3 7.7- 9.1 SL 8LENNIICAE UNIDENTIFIED		0.3 0.3 5.5 0.0 156.7 9.1 0.3 0.9 3.6
C 4 19 05 ENC PEL YOPUS CIMBRIUS SCOPHER S CONBRUS SCOPHTHALMS AQUINUS GLYPTOCEPHALUS CYNOGLOSSUS LIMANDA FERRUCINFA A DOLT IONAL LARVAF CAUGHT		SAMPLING DEPTH 18-33M  2 32 1 1 2.5 SL 3 2 6.4 6.2-6.7 SL 191 25 4.4 3.3-5.6 SL	0.0 0.7 0.0 37.1 0.3 1.6 89.8
G 5 19 05 ENCHELYMPUS CIMBRIUS SCENBER SCHMERUS GLYPTICEPHALLS CYNNGLOSSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUCHT	SAMPLINC DEPTH 0-15M 2 2 3.5 3.5- 3.5 SL 1 1 1 5.4 SL 178 25 4.2 3.1- 5.3 SL UNIDENTIFIED	SAMPLING DEPTH 1E-33M 1 1 3.7 SL 0 0 288 25 5.0 2.9-6.2 SL	0.9 C.3 0.0 0.3 0.3 149.4
G 6 19 N5 SCOMBER SCOMBRHS LIMANDA FERRUCINFA	SAMPLINC CIPTH 0-15M 10 7 6.6 5.7- 7.3 SL	SAMPLING DEPTH 18-23M 2 4 3 7.1 6.5- 7.7 SL	0.0 C. 7

TABLE 3. (continued)	1	
CPUISE NATE E66 5 1966 STA. N SPECIES ANALYZEE H I 19 C5	NUMBER LENGTHS [MM] NO. NUMBER LENGTHS (MM) NO. TOTAL MEAS. HEAN RANGE MEAS. EGGS TOTAL MEAS. MEAN PANGE MEAS. EGGS	NO. PER 10M LAFVAE EGGS
CYNCSCIEN SP. MENTICIRRHUS SP. SCOMBER SCOMBRUS PEFFILUS TRIACANTHUS SCOPHTHALMUS AQUDSUS LIMANDA FERQUCINFA PSELOOPLE URCNETES IMERICANUS AUDITIDNAI LARVAE CAUGHT	2 2 2.7 2.7- 2.8 SL 4 4 2.8 2.5- 3.4 SL 326 1 1 8.7 SL 47 42 3.3 2.4- 5.4 SL 1 1 4.5 SL 3 3 7.4 7.1- 7.7 SL STROMA TEIDAE UNIDENTIFIED	0.1 0.2 0.0 15.E 0.1 2.8 0.1 0.2
F 2 19 05 SCCMBER SCOMBRUS SCORPT HALMUS AQUINUS LIMANDA FERPUCINEA PSELODPLEURONECTEN AMERICANUS ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 7E6  102	0.0 238.2 30.9 1.2 2.4
F 3 19 05 TALINGA ONLTIS SCOMBER SCOMBUS SCOFHTHALMUS ZOUNNUS LIMMNDA FERRUCINEA PSELDOPLEURONECTES AMERICANUS A DOITTONAL TARVAE CAUCHT	SAMPLINC DEPTH C-15M 15 1 2.6 TL 42 50 46 2.9 2.3-3.8 SL 21 20 6.5 5.2-8.8 SL 1 1 6.2 SL UNIDENTIFIED	4.5 C.C 12.7 18.2 6.4 0.3
H 4 20 05  FNCHELYDDIS CIMBRIUS  GAOLS MORHJA  SCCMBER SCOMBRUS  LIPARIS INOUTLINUS  SCOPHTHALMUS ADUNNUS  GLYPTICEPHALUS CYNNGLOSSUS  LIMANDA FERPUCINEA	SAMPLINC CEPTH 0-15M 3	0.9 C.C 0.3 C.C 0.0 61.5 0.3 3.0 C.3 16.7
F 5 20 05  FNCHELYDDUS CIMBRIUS  MERLUCCIUS BILINFARIS  SCEMBER SCOMBRUS  SCOPHTHAI MUS ADUISUS  GLYSTOCEPHALUS CYNNOLISSUS LIMANDA FERRUGINEA  ADDITIONAL LARVAF CAUGHT	SAMPLING OFF TH C-15M  1 1 3.4 SL  0 3 2 3.4 3.2- 3.5 SL  0 1  108  4 4 3.1 3.0- 3.3 SL  1 2 2 5.6 5.4- 5.9 SL  UNIOENTIFIED  SAMPLING DEFTH 18-24M  1 10-24M  1 10-8  1 10-8  1 10-8  UNIOENTIFIED	0.9 0.C 0.C C.Z 0.0 43.0 2.4 0.6 25.0
F 6 20 05 ENCHELYOPUS CIMBRIUS SCOMBER SCOMBRUS SCOFFITHALMUS ZOUDNUS GLYFTOCEPHALUS CYNDOLOSSUS LIMINON FERRUCINEA	SAMPLING DEPTH 0-15M	0.3 0.0 0.0 1.3 0.7 0.3 8.5
F 7 20 05 FACEFLYDDUS CIMBRIUS LIMANDA FERRUGINEA ADDITYONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M SAMPLING DEPTH 1E-33M 0 1 1 2.4 SL 0 3 UNIDENTIFIED	0.3 1.0
J 1 21 05 TAUTOSA ONITIS SCHMER SCOMBRUS SCERTHALMUS ROUNSUS LIMANDA FERPUCINFA ADOLITIONAL LARVAE CAUGHT	UNIOENTIFIED	0.1 0.0 1.1 0.1
J 2 21 05  B PE VOOR II A TY FANNUS  S CC PBE P S COMPRUS  S CO FHTHALMUS ACUINUS  A COLITIONAL LARVAE CAUGHT		0.1 c.0 2.5 5.0
J 3 71 05 PREVOORTIA TYPANNUS SCERRER SCOMBRUS SCORHTHALMUS AQUINUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-6M 1 1 25.C 4 4 3.6 3.2- 4.3 SL 15 205 5C 3.1 2.2- 4.8 SL 2 2 8.9 8.7- 5.1 SL	C.1 0.5 1.8 24.8 0.2

TABLE 3. (continued)			
CRUISE MATE E66 5 1966 STA. D M SPECIES ANALYZED J 4 20 05	NUMBER LENGTHS (MM) NO. TOTAL MERS. MEAN RANCE MEAS. EGCS SAMPLING DEPTH C-15M 9 9 4.6 3.4-6.8 SL 79	************* LARVAE ************************************	AD. PER 10M LIFVAE EGGS
SCC MARR SCOMBRUS SCORHTHALMUS AQUISUS GLYFTOCEPHALUS CYMOCLOSSUS LIMANDA FERRUGINFA ADDITIONAL LARVAE CAUGHT	72		2.7 23.9 21.8 0.6 18.5
J 5 20 05 ENCHELYCPUS CIMBRIUS SCEMBER SCOMBRUS SCEPHTHALMUS AQUONUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT			0.3 C.C 1.5 1.5 6.7 57.0
		54461405 6507 3.6.304	
J 6 20 05 ENCHELYDPUS CIMBRIUS SCCMBER SCOMBRUS LIMANDA FERRUGINEA	SAMPLING DEPTH D-15M 1 1 4.1 SL 0 4	SAMPLING DEPTH 18-33M 0 5 26 25 5.2 3.9-7.4 SL	0.3 0.C 0.0 2.9
ADDITIONAL LARVAE CAUCHT	UNIDENTIFIED	UNIDENTIFIED	
J 7 20 05 SCCMBER SCOMBRUS	SAMPLINE DEPTH 0-15M	SAMPLING EEPTH 18-33M	0.0 1.5
S CO FHT HALMIS AQUDSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT	•	2 2 3.1 2.9-3.3 SL 52 25 6.1 4.8-8.9 SL UNIDENTIFIEE	0 .7 27 .8
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •
K 1 21 05 BREVOORTIB TYPANNUS LEICSTOMUS XANTHUMUS SCOMBER SCOMBRUS	SAMPLING DEPTH D-6M 1		0 • 1 0 • 2 1 • 1
SCEPHTHALMUS AQUITAUS A DO LT TONAL LARVAE CAUGHT	35 28 3.6 2.6- 5.8 SL		4 .2
K 2 21 05	SAMPLINC EEPTH O- 6M		
LCPHIUS AMERICANUS TALTOGA CNITIS SCOMBER SCOMBRUS PARALICHTHYS EENTATUS	1 1 5.2 TL 8 7 2.8 2.7-3.1 TL 295 6C 3.9 2.5-7.7 SL 0 1 1 9.5 SL 0		0.1 I.O 25.8 C.C D.1 0.C
SCOPHTHALPUS AQUOSUS LIMANDA FERRUCINFA AEDIT IONAA LARVAE CAUGHT			13 •2 0 •2
K 3 21 05 TAU TOGA DINI TI C SECHBER SCOMBRUS	2 218 57 4.3 2.8- 8.1 SL D		0.6 66.1 0.C
CITHARICHTHYS ARCITERONS SCHPHTHALMUS ADUNNUS GLYFTOCEPHALUS CYNDCLOSSUS LIMANDA FERRUGINEA	1 1 3.1 SL 34 20 4.2 2.8-6.1 SL 5 5 14.6 11.9-17.6 SL 13 13 8.4 6.7-10.7 SL		0.3 10.3 1.5 3.9
ADDIT IDNAL LARVAE CAUGHT	LABRIDAE OR SCARIDAE UNIDENTIFIED		
• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	
K 4 22 C5 LOPHUS AMERICANUS ENCHELYOPUS EIMBRAUS	SAMPLING CEPTH 0-15M 2 2 4.2 3.5- 4.9 TL	SAMPLING DEPTH 18-24M  1 I 4.6 SL 0	0.6 0.2 0.0
SCOMBER SCOMBRUS SCOEFT HALMIS AQUONUS GLYFTOGERHALUS CYNDOLCSSUS	119 46 3.4 2.5- 5.5 SL 0 2 1 2.8 SL 3 2 10.2 9.6-10.7 SL	11 7 3.5 3.1- 4.9 SL D 1 1 5.6 SL 1 1 5.0 SL	38.5 0.0 0.8 1.1
L IMANDA FERRUGINEA ACDIT IDNAL LARVAE CAUCHT	36 25 7.2 5.3- 9.2 St	55 25 7.1 4.5-10.5 St	19.9
		• • • • • • • • • • • • • • • • • • • •	
K 5 22 D5 L CPHEUS A MERICANUS	SAMPLING DEPTH C-15M 1 1 3.3 TL	SAMPLING DEPTH	t .0
MERLUCCIUS BILINEARIS SCOMBER SCOMPRUS	1 1 2.5 NL 0 118 52 3.1 2.5- 5.1 SL 0	53 38 3.2 2.5- 5.4 SL 0	0.3 E.C 44.8 D.O
SEOPHTHALMUS AQUTSUS LIMANDA FEPRUCINFA ADDITIONAL LARVAE CAUCHT	2 27 24 5.7 4.7- 9.1 SL UNIDENTIFIED	13 10 5.2 4.6- 6.8 SL UNIDENTIFIED	0.6
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
K 6 22 05 ENCHEL YORKS CIMBRAUS	SAMPLING BEPTH C-15M	SAMPLING DEPTH 18-33M O	0.3 C.C
UFOFHYCIS SR. SECMBER SCOMBRUS	0	5 5 3.4 2.8- 3.9 NL 3 3 4.0 3.8- 4.2 SL D	1.7 1.0 0.0
GLY FINCEPHALUS CYMN CLOSSUS LIMANOA FFRRUGINFA ADDIT IDNAL LARVAE CAUGHT	20 17 5.9 4.5- 8.0 SL	4 2 6.1 5.4-6.7 St EE 25 7.0 4.2-13.2 St UNIDENTIFIEC	1.3 35.3

CRUISE DATE D66 5 1966 STA. D 4 SPECIES ANALYZED K 7 22 05 MYC TOPHID AE R ENTHOSEM A SP. ENCLFELYOPES CIMBRIUS SCOMBER SCOMBRUS LIMANDA FERRUCINEA	NUMBER LENGTHS (MM) ND. TOTAL ME/S. MEAN RANCE MEAS. EGGS TOT	LARVAE   LENGTHS (MM)   ND.   ND.   PER 10 M
( E 22 05 ETRLMEUS SADINA URCFHYCIS SP. LEE(STCMIS XANTHUMUS SCOMBER SCOMBRUS	SAMPLING DEP TH C- 6M 2 2 35.3 17.8-52.8 TL 6 56.6 NL 1 1 8.3 SL 3 3 3.7 3.0-4.2 SL 0	0.2 0.1 0.1 0.4 C.C
SCOFHTHALMUS AQUOSUS ADDITIONAL LARVAE CAUGHT	7 5 3.2 2.9- 3.7 SL SYNGNATHICAE	0.8
L 2 23 05 ETRIMEUS SADINA TAUTOGA ONITIS SCOMBER SCOMBRUS PEPPILUS TRIACANTHUS SCOPHTHALMUS AQUOSUS ADDITIONAL LARVAE CAUGHT	SAMPLINC CEPTH 0-6M	C.1 0.5 1f.3 0.5 2.5
E TRUMEUS SADINA ENCHELYDPUS CIMBRIUS GADLS MORHUA TAUTOGA DINETIS SCEMBER SCOMBBUS PERRILUS TRIACANIHUS PAPILICHT HYS CENTATUS SCOPHHALMUS AQUOSUS GLYPTOCEPHALUS CYAD CLOSSUS LIMANDA FERRUCENEA ADDITIONAL LARVAF CAUGHT	1 1 3.3 SL 0 4 4 3.6 3.4-4.0 TL 15 52 4.0 2.8-5.5 SL 0 1	#PELING DEPTH 18-33 M  1
E 4 22 C5 FIREMEUS SADIMA LOPPIUS AMERICANUS SCCMBER SCOMBRUS PEPPILUS TRIACANTHUS PARALICHTHYS CENTATUS HIPFOGLOSSINA DBLONCUS SCOPHTHALMUS AQUOSUS GIYFTOCEPHALUS CYMOCLOSSUS LIMANDA FERRUGINEA ADDIT IDNAL LARVAE CAUGHT	3 3 4.4 4.2-4.6 TL  241 61 3.6 2.6-6.8 SL 0  15 15 5.9 3.4-9.9 SL 6 6 6.4 SL 0  6 54 3.6 2.4-5.7 SL 2 2 7.2 7.0-7.4 SL 3 3 9.4 7.0-£2.0 SL  SPARIDAE  UNIDENTIFIED  SPA	4PLING DEPTH 18-23M 2 2 1E.6 18.2-19.1 TL 0.7 3 3 4.6 4.6-4.7 TL E.9 33 30 3.6 2.6-7.2 SL 0 83.3 0.0 25 25 5.2 2.3-9.2 SL 12.8 2 2 9.0 8.8-9.3 SL 0 1.0 0.0 84 50 4.1 2.8-6.2 SL 6.3 19 19 12.5 7.5-22.3 SL 6.9 12 12 8.6 6.7-1C.2 SL 4.9 NDDCNTICAE RAIDAE
		• • • • • • • • • • • • • • • • • • • •
L 5 72 05 LCFFIUS AMERICANUS ENCHELYOPES CIMBRIUS SCEMBER SCOMBRUS PEPRILUS TRIACANTHUS CITHARICHTHYS ARCIIFPONS SCEMTHALMUS AVOIDSUS GLYPTOCEPHALUS CYMOGLOSSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUCHT	1	APLENG OEPTH 18-23H  7 7 2.9 2.3- 2.4 SL 0 2.3 0.0  £ 1 6.£ SL 0.3  1 1 8.7 SL 0.3  10 9 4.5 3.1- 5.8 SL 6.0  5 4 10.3 7.5-12.3 SL 1.7  286 25 6.6 4.3-E0.1 SL ICB.8
P 1 23 05 PEPRILUS TRIACANTHUS AODITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-6M 2 2 3.1 2.6-3.6 St SPARIDAE	0.2
P 2 23 05 PFICNOTUS CARCLINUS ADOIT DINAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M 6 6 2.5 2.0- 3.4 SL	0.7

TABLE 3. (Continued)				/0									
CRUISE DATE  D66 1966  STA. D M SPECIES ANALYZED  M 3 23 C5  SIRINELLA ANCHOVIA  ANCHOA HEPSETLS  MYCTOPHIDAE  CIRITOSCOPELUS MADEFENSIS  UNDPHYCIS SP.  LARIMUS FASCIATUS  PEPPILUS TRIACANTHUS  PPICNOTUS CARCLINUS  CITHARICHTHYS ARCTIFRENS  ETROPUS MICROSTOMUS  SYMPHURUS SP.  ADDITIONAL LARVAE CAUGHT	4 4 1 1 1 1 3 3 2 2 18 18 4 4 1 1 3 3 3 3 6 6	HEAN OTH OF 12.5 5.2 6.1 3.6 3.5 4.7 5.5 10.2 4.4 4.5 .6	NCTHS I RANGE - 6M 10.5-14 7.0-12 3.1-4 3.4-3 2.3-9 5.2-6 3.5-4 3.2-7	MEAS.  .8 TL .0 TL .2 NL .7 SL .8 SL .9 SL .9 SL	NC .	NUME TCTAL M	ER	LE	AE ****** NGTHS IMM RANGE	1	NO. EGGS	NO. PER 14 FV AE 0.4 0.5 0.1 0.4 0.2 2.2 0.5 0.1 0.4 0.7	2 LOP EGGS
						• • • •		• •	• • • •	• •		• • • • •	
M 4 23 05	SAMPLINE DEF	TH O-	-15M			SAMPLIN	G DEP	тн 1	I E- 24M				
OPHICHTHIS SP. ANCHOA HEPSETUS	1 1	58.5		TL		25	2 5	9.3	5.0-14.	7 TI		0.3 4.0	
ENGRAUL IS EUR YS TOLE	42 42	2 . R	1.1-17	.3 TL					300			13.6	
MYCTOPHIDAE CERATOSCOPELUS MADEFENSIS	3 3 1 1	5.3 5.6	4.8- 6	.C SL SL		1	1	5.6		SL		1.1	
CERATOS COPELUS WARM IN CI		J • 0		36		1	1	5.9		SL		0.2	
HYGIPHUM RENOITI HR MYGCMI	1 I	4.8		SL				٠,		C.		0.3	
ENGREHUM TANN INGI LEMFANYCTUS SP.	1 I	4.0		SL		i i	I l	5.6 4.8		SL S L		0.5	
LAMPANYC TUS A TER	1 1	5.1		SL		1	1	6.7		SL		0.5	
MYCTORHUM SP. PEMATOMUS SALTATRAY	1 1	5.1		SL		2	2	4.7	4.4- 5.	SL		0.3 0.5	
LARIMUS FASCIATUS	3 3		3.5- 4									1.0	
ALXIS SP. Futhynnus Allettekatus	8 9 1 1	5.6 6.1	4.2- 7	.5 SL SL		5	5	5.4	4.5- 6.6	SL		3.3 0.3	
S FREA S AREA					6						3	0.0	2.3
SCOMBER JAPONICUS Scomberomorus Cavalla	2 2 I l	5.6 7.5	5.5- 5	.8 SL	0	2	2	6.6	6.3- 6.9	} SL	0	0.6	0.0
PEPPILUS TRIACANTHUS	41 41	4.0	1.7- 9	. B SL		27	2 7	3.9				17.0	
BETHUS OCELLATUS CYCLOPSETTA FIMBRIATA	3 3 2	3.6 6.0	3.2~ 3 5.0~ 6			5 1	4	4.0	4.1-14.	S SL		1 .7 0 .8	
SYACIUM PAPILINSUM	25 24	4.3	2.1- 6	.2 SL		15	15	5. C	4.1- 6.	. SL		10 .8	
SYMPHURIIS SP. ADDITIONAL LARVAE CAUCH	3R 3R THIRAENTEAF	5.4	3.1-13	.6 SL		3 I MURAENI	3 E	5.6	3.2-10.	SL		16.7	
ADVIT TOUGH CENTER CHOCK	CPHICHTHICA					OPHICH	TH I DA E						
	CYCLOTHENE: SYNODONTICA					5 YN 0001							
	LOPHITECEME	5				OPHIOI	DAE						
	BREGMACEFCT OPHIOITEAE	DAE				SERRAN APOGONI							
	SE RRANTE /E					E AR ANG							
	APOGONICAE CARANGICAE					SPARIDA LABRIDA		SCARI	EAE				
	CORYPHAENIC	ΔE				SPHYRA	EN I CA I						
	SPARICAE LABRIDAE OR	SCAR I	CAE			GOB I IO							
	MUGILICAE PLENNIICAE					TRICHI							
	CALLIONINIO	4 F				STRGMA							
	GOBIIDAE STROMATEIDA	F				SCORPAI TRIGLI		Ē					
	SC ORPAEN 10 A					8AL I ST	DAE						
	TRIGLICAE BALISTICAE					TETRADI UNIDEN							
	UNIDENTIFIE	3				0.110014		-					

TABLE 3. (continued)	79	
CPUISE DATE C66 5 1966 STA. D M SPECIES ANALYZED F 5 23 05 ANCHOA HEPSETUS MYCIDPHIDAE CERATOSCOFFUUS MADEFENSIS DIAPHUS SP. UFCFRYCIS SP. HEMMITHIAS VIVANUS POMATOMUS SALTATRIX AUXIS SP.	NUMBER LENGTHS [MM] NO. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M 81 41 12.3 8.3-19.3 TL 2 2 4.9 4.3-5.6 SL 1 1 2.6 1 1 1 5.6 1 1 1 5.6 1 1 1 5.6 1 1 3.9 NL 1 1 4.5 SL 1 7 7.7 5.1-9.1 SL 6 6 6 6.1 5.0-7.4 SL	NO. PER 10M LAFVAE EGGS 27.3 0.9 0.3 0.3 0.3 2.6 5.7 5.1
SARCA SAPDA PEPTILUS TRIACANTHUS BOTHUS OCELLATUS CYCLOR SETTA FIMBRIA TA SYACIUM PAPILLOSUM SYMPHURUS SP. ADDIT TONAL LARVAE CAUGHT	1	0.3 0.0 6.2 7.9 0.9 13.7 13.6
N 1 24 05 SARCINELLA ANCHOVIA ENGEMILIS EURYSTOI E SYMFHURUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DEP TH	1.8 1.8 1.9
N 2 24 05 SARCINELLA ANCHOVIA ANCHOA HEPSETUS ENGRAULIS EURYSTOLE LAR MUS FASCIATUS PEPPILUS TRIACANTHUS SYMFHURUS SP. ACDIT IONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 2 2 16.3 15.0-17.6 TL 9 9 13.9 9.4-17.4 TL 1 1 23.0 TL 1 1 4.7 SL 2 2 4.8 4.7- 5.0 SL 4 4 9.2 6.0-11.8 SL SYNODONTIDAE BREGMACEFOTICAE CPHIDIILE LABRIDAE OR SCARIDAE GDBIIOAE BALISTICAE UNIDENTIFIED	0.6 2.7 0.3 C.3 0.6 1.2
CRUISE DATE  CASE TO THE CONTROL OF THE CASE TO THE CASE	NUMBER LENGTHS (MM) NC. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M 4 4 17.5 11.0-23.5 TL 20 20 10.9 7.4-16.0 TL 3 3 11.0 8.1-12.8 TL  1 1 3.8 SL	NO. PER 10 M LAFVAE EGGS 1.6 23.4 1.0 0.2
CEPTIOS COPELUS SP- CEPTIOS CORELUS MADERENS IS PC MATOMUS SANITATRIX SAPIA SAPIA PEPELUS TRIACANTHUS PRICTUTUS CARRIINUS CITHAPICHTHYS ARCITERONS CNCLOPSETTA FIMBRIATA FRODUS MICROSTOMUS SYACIUM PAPILLOSUM SYMOHURUS SP. ACOITIONAL LARVAE CAUCHT	4	0.6 0.2 0.2 0.0 C. E 14.3 0.3 0.2 0.3 1.5 0.3 6.2

CRUISE DATE	******							****										2
066 5 1966	NUMB			NGTHS			ND.	NUME				GTHS			NO.		NO. PER ARVAE	
STA. D.M. SPECIES ANALYZED N.4. 24.05	TOTAL M				Lt	meas .	EUCS	TOTAL A						TEAS.	. EGG S	L	AFVAC	E GG S
OPHICH THUS GOVEST	JA-IF E IN	C DEF	0	1 2				1		21.		,,,,,,		TL			0.3	
STREINELL A ANCHOVIA	4	4	6.3	5.4-	7.4	TL		ì	i					TL			1.5	
ANCHOA HEFSETUS								3 3	3 3	10.	6	6.8-	14.6	TL			11.0	
ENGRAUL IS FUR YSTOLE								9	9	۶.	4	€.5-	12.2	TL.			3.0	
CERATOSCO FFLUS MANERENS IS	2	2		7.8-				1	1	8.				SL			0.9	
CERATOSCOPELL " WARM INGI	6		6.8					1	1					SŁ			2 •1	
CIAFHUS SP.	2	2	4.2	3.5-	4.9	SE		5	5			3.9-	1.5				2.3	
HAGEPHUM PENDITI LAMPANACTES ALATUN ER PHETENDIES								1 2	1 2			3 .5-		SL			0.7	
LAMPANYCTUS ATEP								1	í			3 .5-	4,7	SL			0.7	
MYC TOPHUM AFFINE								2	2			4.3-	6.3				0.7	
NETESCOPELUS RESPLENCENS								1	ĩ					SL			0.3	
URDEHYEIS SP.								4	2	2.	5	2.2-	2.8	NL.			1.3	
HEMANTHEAS VIVANUS								1	1	4.	8			SL			0.3	
PEMATERIS SALTATRIX	1		5 • I			SL											0.3	
LARIMUS FASCIATUS	1	-	3.9			SL											0.3	
AUX IS SP.	13	13	5.5	5.0-	7.6			15	15			4 .6-	9.5				8.9	
FLTHYNNUS ALL FTTF KATUS	1	ı	6.7			SL	_	1	1	f.	5			SL	_		0 .6	
SARTA SARDA PERRILUS TRIACANTHUS	4	4	3.9	3.4-	, ,	C1	9	15	15	-		1.8-	, ,		9		0.0 6.2	5. 7
BETHUS DEELLATUS	92			2.7-				123	25			3.1-					68.6	
CYCLOPS ET TA F IMBRIATA	2			4.0-				2	2			4.2-					1.3	
SYACIUM PAPILIOSUM	94			2.5-				106	2.5			2.6-					€3.5	
SYMPHIRUS SP.	24			3.1-				97	93			3 .2-					29.5	
ADDITIONAL LARVAR CAUCHT	MURAENI	CAE						MURAENI	DAE									
	CYCLCTH	Che S F	٠.					CYCLDTI	HONE	SP.								
	SYNODON							PAUPCLI										
	LOPHIIF							SYNODON										
	OPHIDIII							PARALE		TAE								
	HOLDCEN							SUDIS S		e e								
	CAPROID							BRE G MAC										
	FISTULA		:					OPHIDII										
	SERRANTI							SERRAN										
	AP OG CNI	E A E						APOGONI	IDAE									
	CARANGI	313						MALACA	NT HU	S SP.								
	CORYPHA	ENTEAS						CARANGI										
	SP AP 1D A							COR YPHA		DAE								
	POMACEN							SPARICA										
	LABRIDA BLENNII		CAHI	1A (				POMACEM LABRIDA			016	A E						
	CALL TON							MUG1L1		K SLA	MI L	AL						
	COBITOA							SPHYRAE		ΔF								
	TR ICHI U							CALLICE										
	STROMAT							G08 [ 104										
	SCEPPAE	NIEZE						ACANTH	JR LO	A E								
	TP IGLIDA							TRE CHIL										
	CACTYLO		VOL	ITANS				STROMA										
	BALI STI							SCORPA		ΑĘ								
	UNIOENT	11110						TRIGLIC			ο	TANC						
								BALIST		(02 A	OF I	* HM 2						
								TETRACE		IFAF								
								UNIDENT										
										-								

CPUISE DATE 066 5 1966	********* LARVAE ************************************	********* LARVAE ************************************	PO. PER LOM
STA. O M. SPECIES ANALYZED N. F. 25 C5	TOTAL MEAS. MEAN RANGE MEAS. FGGS	TOTAL MEAS. MEAN RANGE MEAS. EGGS	LAFVAE EGGS
N F 25 05 MEGALOPS ATT ANTICA	SAMPLING DEPTH 0-15M 4 4 7.0 6.5- 7.5 NL	SAMPLING DEPTH 1E-33M 2 2 9.2 8.6- 9.9 NL	1.9
OFFICH THUS DEELLATUS		1 1 43.5 TE	0.3
SAR CINELL A ANCHOVIA	5 5 10.2 8.5-12.6 TL	5 5 12.2 10.6-13.6 TL	3.2
A NO FINAL HEIPS ET US O FRATO SCOPEL US SPA	22 22 10.0 6.1-17.0 TL 1 1 4.7 SL	23 23 1C.7 6.1-17.5 TL	14 .3 0 .3
CERATOS CO PELUS MADERENS IS	2 2 4.E 4.0- 5.E SL	3 2 6.4 6.4-6.5 SL	1.6
CERATOSCOPELUS WARMINGI	8 8 4.9 2.7- 8.9 SL	3 3 4.8 4.3- 5.7 SL	3 .4
DIAPHUS SP. LAMFANYETUS SP.	2	2 2 5.4 4.5- 6.4 St	1.3
LAMPANYCILS ALATUS ER PHOTENDIUS		1	0.3
LAMPANYCTUS ATER		1 1 6.5 SL	0.3
HEMANTHIAS VIVANUS AUX IS SP.	1 1 3.6 SL 106 1C5 6.7 3.8-10.1 SL	169 169 7.1 3.5-10.9 St	0.3 {8.1
EUTHYNNUS ALLETTEHATUS	2 2 5.3 4.5- 6.1 SL	2 2 7.6 6.3- 8.9 St	1.3
KATSUMONUS PELAMIS		2 2 €.2 €.2- €.3 SL	0.7
SIREA SAREA SCEMBERCMORUS CAVALLA	3 3 5.3 3.9- 7.3 SL	7 7 5.7 4.C- 6.8 St	0.0
THUNNIS ALBACARES OR ALALUNGA	I I 5.3 SL	7 7 5.7 4.0- 6.9 50	3.2 C.3
PEPFILUS TPI ACANTHUS		21 21 4.6 2.C-II.7 St	7.0
PRICHTIUS CAROLINHS	3	2 2 3.8 3.7- 4.C SL	D.7
PETHUS OCELLATUS SYACTUM PAPELLOSUM	31 21 5.6 3.1-11.2 SL 19 19 4.3 3.2-7.0 SL	52	26 .6 14 .7
SYMEHIRUS SP.	4 4 4.4 4.0- 5.0 SL	1 1 3.7 St	1.5
A ON I TIONAL LARVAE CAUGHT		ANG UILLIFERMES	
	CPHICH THIC &E CYCLOT + CNE SP.	MUR AENIOAE OPHICHTHIEAE	
	VINCIGUEPRIA SP.	SYNOONTICAE	
	SYNODON TID AE	PARALEPIC ICAE	
	PARALEFICICAE LOPHITECEMES	LOPHLIFURMES BREGMACEPOTICAE	
	OPHIDIIC 4E	OPHIDIIDAE	
	SERP AN 1 C & E	CAR AP IOA E	
	GRAMMI STIO AE	HOLOGENT RICAE	
	APOGONIEAE MALACANTHUS SP.	SERRANIDA E GRAMMISTICA E	
	CARANG I CAE	PRI ACANT HIC AE	
	SPARIDAE	A POGONIDA E	
	CH AE TODENTIO#E POMACENTPICAE	CARANGIOAE CCRYPHAENICAE	
	LABRIDAE OR SCARICAE	POMACENTRIDAE	
	CALLIONYMICAE	LABRICAE DR SCARICAE	
	GDBIIOAE ACANTHURICAE	MLGILIOAE	
	ISTIOPHORICAE	CALL TONYM ICAE GDBIIDAE	
	SCORPAENIEZE	IST TOPHOR IDAE	
	TRIGLIOAE	STROMATEIDAE	
	BALISTICAE TETRAODENTIOAE	SCDR PAEN I CA E TRIGLIDA E	
	UNIDENTIFIED	DAC TYLOPTERLS VOLITANS	
		BAL I STIDA E	
	. <b></b>	TETRAODONTICAE	
P L 24 05 ANCHDA HEPSETUS	SAMPLING DEPTH C-6M		12 (
E TREPUS MICECSTOMUS	102 17 3.6 2.3- 4.2 TL 1 1 2.7 SL		12 •4 0 •1
ACOLTIONAL LAPVAE CAUGH	SYNGNA THIO AE		·
	BLENNITLAE LNIOENTIFIED		
	• • • • • • • • • • • • • • • • • • •		

P 2 74 75 SAMPLING CEPTH 0-6M ADDITED LARVAE CAUGHT UNIDENTIFIED

CRUISE DATH  166 5 1966  STA. D M SPECIES ANALYZED  P 3 24 05  AACHTA HEPSETIS  MYCTOPHIDAE  CRRITOSCOPPEUS SP.  PICHATOMUS SALTATRIX  AUXIS SP.  FIREPUS MICROSTOMUS  SYACIUM PAPILIDSUM  ACDITIONAL LARVAE CAUCHT	LOPHITE CIMES SERPANICAE APOGONICAE CARANGICAE CORYPHAENICAE SPAPIDAE MUGILICAE SPHYRAENICAE SPHYRAENICAE CALLIONYMIAE GOBIIDAE EMPYLICAE SCORPAENICAE BALLSTICAE UNIDENTIFIED	**************************************	NG. PER 10M LIFVAE EGGS 0.4 0.7 1.1 0.5 0.8 0.4 0.1
P 4 24 05  OPHICHTHUS GOMESI ANCHOA HEPSETUS LAMFANYOTUS CUPRINUS NOTCLYCHNUS VALDIVAE CYNCSCION SP. PEPRILUS WIACANTHUS POTHIS OCELLATUS FIRCPUS MICROSTOMUS SYACIJM PAPILLOSUA SYMFHURUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M  17 17 12.3 6.8-20.0 TL  3 3 4.4 3.7-5.1 SL 1 1 3.6 SL  SYNODENTIE/E LOPHIFORMES CPHIDIIL/E SERRANICAE CARANGICAE SPARIDAE BLENNICAE GOBIIDAE STPOMA TEIGAE TPIGLIGAE BALLSTIC/F TE TRADOCOTIDAE UNIDENTIFIED	SAMPLING DEFTH 18-24M  1	0.2 7.8 0.2 0.2 0.2 1.7 0.5 0.5 0.5

CRUISE DATE C66 5 1966 STA. D M SPECIES ANALYZED	NUMB	ER E#S.	L É MEAN	NG THS RANI	[ 22	1	NO.	TOTAL	BER MEAS.	MEAN	NGT FS	(MH	1	NO.	NO . PER	10m <sup>2</sup> EGGS
P 5 24 05	SAMPLIN			-15M				S AMPL 1	NG CE	PIF L	E- 3 3M					
AHLIA EGMENTIS	1	1	77.5			TL									0.3	
ANCHOA HE PSE TES								13	13		4.t-				4.3	
MYCTOPEIDAE	I							3	3		3.7-				1.3	
CERATOSCOPELUS MADE FENSIS	2			5.3~				5	9		4 . 4-				3 .6	
CERATISCOPELUS WAHM INGI	5			5.5-				15	15		3 .4-				6.5	
DIA PHUS SP.	6			4.1-	8.0	SL		27	27	4.7	3.5-	7 - 1	SL		10 .8	
HIGOPHUM TANNINGI	1	1	6.3			SL									0.3	
L≱MFANYCTUS ALATUS DR PHOTONOTUS								1	1	3.4			SL		0.3	
LAMFADENA SP.								1	1	5.4			SL		0.3	
MYCTOPHUM SP.								2	2		4 .6-				0.7	
HEMANTHIAS VIVANUS								2	2		3.6-				0.7	
ACXIS SP.	9	9	5.7	4.0-	10.6	SL		11	1.1		3 . 8-				6.4	
EUTHYNNUS ALLETTEHATUS	3	3	5.5	4.5	7.4	SL		2	2	5.1	3.8-	6.4	SL		1.6	
KATSUMONUS PELAMES	7	7	6.6	6.2-	7.1	SL		1	1	4.5			SL		2 •4	
SIRIA SARCA							0							1	0.0	0.3
SCC+BERCMCRUS CAVALLA	4	4	3.8	3.6-	4.2	SL		11	11	3. 9	3.4-	4.8	SL		4.9	
THUNNUS ALRACARES								1	1	4.1			SL		0.3	
THUNNUS ALBACAPES OF ALALUNGA	1	1	5.3			SL									0.3	
THUNNUS DBESUS OR A TLANTICUS	ī	1	4.5			SL									0.3	
PRICNOTUS CAROLINUS	1	1	5.5			SL									0.3	
RITHUS OCELLATUS	16	16	5.8	3.0-	13.7	SL		6	ŧ	5.6	4 . 4-	7.6	SL		6.8	
FTROPUS MICROSTOMHS	4	4	6.0	3.9-	8.3	SL									1.3	
SYACIUM PAPII LOSUM	10	10	4.3	2.6-	6.9	SL		14	14	3.8	2.2-	6.3	SI		7.7	
SYMPHURUS SP.	4	4	3.8	3.3-	4.7	SL		6	5	4.6	3.1-	€. €	SL		3 .2	
ACDIT TONAL LARVAE CAUGHT	MURAENI	DAE						A NG U1 L	LIFER	MES						
	CPHICHT	H10 46						MURAEN	BAGI							
	5 Y N O D O N	1.1C.4E						OPHICH	THICA	£						
	LOPHIIF							SYNDDO	ACITA	E						
	BREGMAC							PARALE	01019	A E						
	DPHIDII	CAE						LCPHII	FORME	S						
	HOLDCEN	TFILA	€ .					OPHIDI	IDAE							
	SERRANI	0.46						HOLDCE	NTRIC	ΑE						
	PRIACAN	TELCA	E					SERRAN	IDAE							
	APOGENI	C FE						GRAMMI	STICA	E						
	CARANGI	CAE						PRIACA	NT FID	≉ E						
	CDRY PH	SENTEA	€					A POGDN	DAE							
	CHAFTCO	ENTID	AE					CAR ANG	1 DAE							
	POMACEN	TRICA	٤					SPARIC	AΕ							
	LABRIDA	E CF	SCARI	CAE				CHAETD	DO N T I	CAE						
	8LENNI I	DAE						POMACE	NTRIC	ΑE						
	CALL ION	YMICA	3.					LABRID	AE DR	SCARI	CAE					
	GOBIIO	E						MUGILI	DAE							
	AC AN THU	R 1CAE						SPHYRA	ENICA	E						
	CEMPYLI							CALLIO		AE						
	SC DR P A E							311803								
	TRIGLIO	. ≠ €						ACANTH								
	BALISTI							SCORPA		E						
	ONIDENI	TIFIEC	1					BALIST	IDAE							

CRUISE DATE  D66 7 1966  STA. D 4 SPECIES ANALYZED  A 1 17 06  ENCHELYOPUS CIMBRIUS  MELANDGRAMMUS AEGIEFINUS  UFOFRYCIS CHUSS  MERLUCCIUS BILINEARIS	NUMBER LENGTHS (MM) NO. NUMBER TOTAL MEAS. MEAN RANGE MEAS. EGGS TOTAL MEAS. ME SAMPLING DEPTH C- 6M 15 15 4.2 3.2- 5.7 SL 1 1 1 4.3 SL 0 2 1 1.4 NL 81 54 2.4 1.7- 2.8 NL 206	ARVAE ************************************
TAUTIGA ONITTIS  SCCMER SCOMBRUS LIPIRIS ATLANTICUS SCCHITHALMUS ADUDSUS GLYPTOCEPHALUS CYNOGLOSSUS LIMANDA FERRUCINFA PSE LOOPLE UPONET TES IMERICANUS ADDIT IDNAL LARVAE CAUGH	3 71 62 3.4 2.7- 4.7 SL 21CB 18 18 5.2 3.2- 7.2 TL 60 56 3.1 2.3- 5.7 SL 3 2 4.5 4.4- 4.5 SL 65 25 4.2 2.5- 7.7 SL 83 25 5.3 4.3- 7.7 SL BLENNITOAE EALISTICAE	0.4 8.6 255.5 2.2 7.3 0.4 7.9 10.1
	•••••	• • • • • • • • • • • • • • • • • • • •
A 2 17 96 ENCHELYCPLS CIMBPAUS UPOPHY CIS CHUSS MEPLUCCIUS BILINFARIS TAUTOGA ONITIS TAUTOGA ONITIS SCOMBER SCOMBRUS LIPAPIS ATLANTICUS SCOPHTHAL MUS AQUOSUS GLYPTOCEP HALUS CYNOGLOSSUS LIMANDA FERRUCINFA P SE LODPLE GRONES TEN AMERICANLS	SAMPLING OEP TH	5.2 3.6 0.3 22.7 73.3 0.6 0.3 10.0 371.8 0.6 1.2 2.4 78.8 46.4
A 3 17 0 6 FNCFELYOPUS CIMBRIUS GADLS MORHUA UPOPHYCTS CHLSS MERLUCCIUS RILLNEARIS TAUTOSOLABPUS ADSMERSLS SCOFMTHALMUS ADVINIS GLYPTOCEPHALMUS ADVINIS GLYPTOCEPHALMUS CYMOGLOSSUS LIMANDA FRRUCCINEA PSELDOPLE URONECTES AMERICANUS ACOITIONAL LARVAE CAUGHT	1 1 4.6 SL 0 3 3 1.4 1.2-1.5 NL 49 25 2.2 1.8-2.6 NL 117 3 3 2 14 13 3.4 2.6-4.3 IL 12 11 3 44 40 3.0 2.3-4.1 SL 2385 24 24 3 2 1 2.5 3 3 4.3 3.7-4.7 SL 9 9 9 4 415 25 4.6 3.0-7.8 SL 665 25 4	.0 2.9-4.6 SL 8 5.0 1.6 0.3 0.0 1.6 1.0 1.0 1.0 1.0 1.0 1.0 1.1 1.9-2.3 NL 209 15.8 69.7 6.2 1.2.5-4.0 SL 1009 17.4 895.4 0.6 5.3 3.5-7.0 SL 2.4 8.8 2.9-6.5 SL 234.9 10.1
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
A 4 17 06 ENCHELYCPUS CIMBRIUS GADLS MORHUA MELANOGRAMMUS AEGLEFINUS MERIUCCIUS BILINEARIS TAUTOGOLABRUS ADSPERSUS SCCMBER SCOMBRUS CLYSTOCEPHALUS CYMOCLOSSUS LIMANDA FERRUCINEA PSELDOPLE URON FCTES AMERICANLS	0 1 1 2 0 0 3 3 6 0 0 3 3 6 0 0 0 0 0 0 0 0 0 0	18-33M .6 1.8- 3.7 St 23 12.9 14.6 .9 St 0 0.3 C.C .9 6.1- 8.1 St 0 1.0 0.0 .4 2.C- 3.1 Nt 158 6.2 84.8 .0 2.6- 3.7 St 1997 14.1 2064.7 .5 3.8- 5.5 St 9.3 .2 2.1- 6.7 St 260.3 .1 3.2- 5.4 St 5.6
A 5 17 OE  FINCHELYOPUS CIMBRAUS  UPOPHYCIS SP.  UFCPHYCIS CHUSS	3 2 2.0 1.8- 2.2 NL	LE-23M •2 1.7- 3.7 SL 107 128.4 76.2 1.0 •6 Nt 0.3
MERLUCCTUS BILINEAR IS TAUTOGOLABRUS AOSPERSUS SCOMBER SCOMBRUS	4 3 2.7 2.2-3.1 NL 123 1 1 2 2 3	.8 NL 79 1.5 63.2 .9 3.4-4.4 TL 0.7 .6 2.9-4.7 SL 47 26.1 44.5
GLYPTOCEPHALUS CYNOGLDSSUS LIMANDA FERRUGINFA PSELOOPLE UR ON ECTES AMERICANLS	8 6 5.1 3.7- 7.2 SL 25 24 5 278 25 4.3 2.9- 5.3 SL 439 25 5	.8 3.4- 9.2 SL 10.7 .5 3.9- 6.7 SL 229.7 .5 SL 0.6
A 6 _ 17 C6 _	SAMPLING CEPTH 0-15M SAMPLING DEPTH	18-33M
ENCHELY OPUS CIMBRIUS MEL ANDGRAMMUS A EGI EFINUS UROPHYCIS CHUSS MEPLUCCIUS BILINEARIS SCCMBEP SCCMBRUS	73 38 2.5 1.6- 4.6 SL 283 316 40 2 L 1 5.6 SL 0 1 1 7 1 1 4.C NL	.2 1.6- 3.9 SL 383 127.2 212.5
CLY FTOCEP FALUS CYAN CLOSSUS LIMANNA FERRUGINEA A ODITIONAL LAPVAE CAUGHT	20 17 5.5 3.7- 8.5 St 24 16 5 640 25 4.8 3.2- 7.2 St 756 25 5	.5 3.2- 7.9 St 14.0 .0 3.5- 6.7 St 444.0

CRUISE DATE 066 7 1966 STA. D.M. SPECIES ANALYZED A 7 17 06 BENIND SEMA GLACIALE CERATOSCO PELUS MADEFENS IS	NUMPER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING CEPTH 0-15M  3 3 6.8 6.1- 7.6 SL	NUMBER LENGTHS (MM) TCTAL MEAS. MEAN RANGE MEAS. SAMPLING DEPTH LE-33M 6 6 5.9 8.9-12.1 SL 3 3 7.0 6.3-7.4 SL	2.0 1.9
H YGCPHUM HYGOMI LCPHUS AMERICANUS ENCHELYOPUS CIMBRIUS MELANDGRAMMUS AEGLEFINUS UFCPHYCIS CHUSS MERLUCCIUS BILINEARIS S CCMBER S COMBRUS CLYFTOCEPHALUS CYNOGLCSSUS LIMANDA FERRUGINEA	1 1 11.4 SL 3 3 4.7 3.9- 5.2 TL 5 5 2.9 2.0- 3.8 SL 0 1 1 1.4 NL 2 2 3.5 3.5- 3.6 SL 21 4 1 5.4 SL	1 1 2.9 TL 9 8 2.8 2.2- 3.9 SL 1 1 7.1 SL  5 5 3.4 3.0- 4.1 SL 2 1 5.1 SL 13 2 6.2 5.2- 7.1 SL	0.3 1.2 1 4.5 0.3 0 0.3 C.C 0.3 0 0.0 0.3 0 2.3 7.C 0.7 5.5
P 1 19 0 € ENCHELYOPUS CIMBRIUS GADUS MORHUA UPEPHYCIS CHUSS MEPLUCCIUS BILINEARIS TAUTOGA ONITIS TAUTOGE ANITIS TAUTOGE SCOMBRUS SCOMBER SCOMBRUS LIFIRIS ATLANTICUS SCOPHTHAL MUS ADUNCUS GLYPTOCEPHALUS CYNOGUSSUS LIMANDA FERRUGINEA PSELOOPLE URONECTES AMERICANUS ADDIT DNAL LAPVAE CAUGHT	SAMPLING DEPTH 0-15M 243		13.6 1.5 0.6 0.0 0.3 0.9 1.2 10.9 164.5 23.3 23.3 0.3 3.9 0.6 8.2 18.5
P 2 18 06  FNCHELYCPUS CIMBRIUS  CADLS MORHUA  MERIUCCIUS BILINEARIS  TAUTOGA ONITIS  TAUTOGOLA BRUS AOSPERSUS  SCOMBER SCOMBRUS  LIPAPIS A ILANTICUS  SCOPHTHALMUS AOUNSUS  GLYPTTCEPHALLS CYMTGLOSSUS  LIMANDA FERRUCINEA  P SELDOPLE URONECTES AMERICANUS  ADOITIDNAL LAPVAE CAUGHT	SAMPLING OFF TH C-15M 39 37 2.6 1.5-5.1 SL 79  1 8 16 2.6 2.0-5.3 NL 16 52 42 2.7 1.9-3.9 TL 1100 715 3.0 1.7-5.5 TL 894 83 3.7 2.4-7.2 SL 124 4 3 4.2 3.4-5.7 TL 3 2 2.8 2.7-2.8 SL 1 1 8.8 SL 55 13 6.7 3.4-9.2 SL 8LENNIIOAE	SAMPLING CEPT + 18-24M 4	2 12.6 25.5 0 0.2 C.3 3 5.8 5.4 16.8 355.5 11 288.9 43.3 2.8 1.0 0.3 28.2 1.1
P 3 18 CE ENCELYOPUS CIMBRIUS GAOLS MORHUA MERLUCCIUS BILINEAR IS TAUTOGA ONI ITS TAUTOGA ONI ES SCEMBER SCOMBRUS 1 PARTS I NOULLINUS GLYFTOCEPHALUS CYNO CLOSSUS LIMANDA FERRUCTINEA A DOITTONAL LARVAE CAUGHT	SAMPLING OEPTH C-15M  20  19  5.8  1.6-21.7 SL  10  7  7  6.1  3.4- 7.0 SL  0  15  15  2.9  2.1- 4.4 NL  0  2  I  2.4  420  E74  3.7  2.2- 6.2 TL  256  80  4.2  2.6- 8.2 SL  1C2  1  1  4.8  TL  18  15  4.8  3.4-10.2 SL  129  25  6.5  4.1- 8.2 SL	SAMPLING CEPT + 18-23M 1	0 6.7 2.2 0 2.4 0.0 0 5.8 0.C 0.7 2(6.6 6 E5.3 34.C 3.6 6.0 1C5.0
P 4 1P CE FACELYOPUS CIMBRIUS GADLS MORHUA MERLUCCIUS BILINEARIS TALTOGCLAERUS AOSPERSUS SCEMBER SCOMBRUS LIPPRIS INQUILINUS CR ATLANTICUS GLYFTOCEPHALLS CYNOCLESSUS LIMANOA FERRUCINFA ACOLTIONAL LAEVAE CAUCHT	20 14 4.9 3.4- 7.7 SL 173 25 5.7 3.2- 8.4 SL	SAMPLING DEPTH 18-23M 7 7 3.2 1.9- 4.6 SL 6 3 3.6 2.7- 5.0 NL 6 6 2.6 3.2- 4.4 TL 11 11 3.5 2.7- 6.6 SL 27 15 4.8 3.9- 6.2 TL 4 2 4.6 4.1- 5.0 SL 283 25 5.1 4.2- 6.2 SL	2 24.3 4.6 0 0.7 0.0 7 6.5 E.3 109.7 6 88.3 36.7 9.3 7.3 146.2
P 5 18 06 FNCHEL YOPES CIMBRIUS WELANOGRAMMUS AEGI FFINUS UPORTYCIS CHUSS MEPLUCCIUS RILINGAPIS TAUTOGILAPPUS ADSMERSUS SCOMBER SCOMBRUS I TEPES INQUILINUS SCORHTHALMUS ADMONUS GLYTTOCEPHALUS CYMOCLOSSUS LIMANDA FERRUCINEA	SAMPLING OEP TH 0-15M 147 42 2.5 1.1-4.6 SL 6 0 1 1 1.3 NL 120 116 3.3 2.4-5.7 NL 1 63 60 3.5 2.4-4.7 TL 331 72 3.3 2.3-8.7 SL 110 1 1 3.7 SL 57 54 5.5 3.5-9.2 SL 440 50 5.9 3.3-10.2 SL	SAMPLING OFFTH 18-33M 85 32 2.7 1.5-27.5 SL 1 1 9.0 SL 1 1 1.4 NL 62 56 3.3 2.4- 4.7 NL 127 122 2.7 1.5- 5.C TL 121 43 4.4 2.6- 5.0 SL 1 1 11.C TL 61 58 6.8 3.4- 9.6 SL 612 25 5.3 3.8- 8.1 SL	72 72.4 25.8 0 0.3 0.0 0.6 64 '6.7 21.6 61.2 137 129.6 7E.7 0.3 0.3 0.3 27.4 376.0

TABLE 3. (continued)			
CRUTSE DATE  TAG 7 1966  STA. D. M. SPECIES ANALYZED  P. B. B. OF  ENCHELYCOUS CIMBRIUS  UPDRAYCIS CHUSS  MERLUCCIUS BILINEAR IS  TAUTOGOLABRUS AOSPE FSUS  S COMBER S COMPRUS  GLY FTOCEPHALUS CYND (LOSSUS  LIMANDA FERRICTINEA  ADDIT DNAL LARVAE CAUGHT	NUMBER LENGTHS [MM] NO. TOTAL MIAS. MEAN RANCE MEAS. EGGS SAMPLINE OEPTH 0-15M 319 40 3.3 1.5- 4.7 SL E7 1 1 2.1 24 24 3.5 2.7- 4.6 NL 0 50 49 4.1 2.8- 5.5 TL 121 64 4.2 2.6- 8.2 SL 1 63 63 7.4 2.6- 10.4 SL 34 2 25 6.2 4.2- 8.5 SL UNIOENTIFIED	NUMBER LENGTHS IMM) NO. TOTAL MEAS. MEAN PANGE MEAS. EGGS SAMPLING CEPTH 18-33M 256 31 3.0 1.8- 4.7 St 97 1 1 1.4 60 60 3.7 2.9- 4.4 NL 3 73 68 2.5 2.8- 5.2 TL 154 60 4.1 2.5- 8.3 St 0 64 59 6.8 3.4- 9.7 St 274 25 5.3 3.2- £.1 St UNIOENTIFIEC	NO. PER 10M LAFVAE EGGS 1E1.0 58.4 0.6 27.2 1.0 39.3 E7.6 0.3 40.2 153.9
B 7 18 06  BENTHOSEM & GLICIALE  CERATOSCOPELLS MADERENSIS  CEPITOSCOPELLS WARDERENSIS  CEPITOSCOPELLS WARDERENSIS  CEPITOSCOPELLS WARDERENSIS  ENCHELYOPUS CIMBRIUS  MELANOGRAMMUS AEGLEFINUS  MERLUCCIUS RILINEARIS  TAUTOGOLABRUS AOSPEFSUS  SCEMBEP SCOMBRUS  CLYTTOCEPHALUS CYMOCLOSSUS  LIMANDA FERRUGINEA  ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M  2 2 4.4 4.4-4.5 TL 269 4C 3.1 1.9-4.3 SL 12 2 2 5.1 3.4-6.5 NL 0 1 1 3.1 NL 0 7 7 4.1 3.5-4.7 TL 49 48 3.9 2.6-7.2 SL 1 14 13 9.8 8.1-11.8 SL 112 25 6.5 4.1-10.6 SL UNIOENTIFIED	SAMPLING CEPT   18-33M   2 2 5.7 8.4-11.1 St   3 3 5.8 4.8-7.7 St   1 4.2   1t   291 36 3.0 1.7-4.3 St   10   1 12.6   St   0   1   12.6   St   0   12.6   St   0   12.6   St   0   12.6   St   0   12.6   St	0.7 1.0 0.0 137.C 0.9 177.7 6.5 0.9 0.0 0.3 0.3 3.4 21.7 0.6 7.2 53.9
C I 19 DE LEFFIUS AMERICANUS FNEHLYOPUS CIMBRIUS MERIUCEUS BILINEARIS TAUTEGA CALTIS SCOMBRUS LIPARIS INQUILINUS LIMANDA EFRRUGINEA ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 9 9 5 5.5 4.3-1C.5 TL 8 7 4.8 3.3-8.2 SL 0 8 2 3.6 2.7-4.5 NL 0 1 1 2.3 TL 1 1 3.5 SL 0 1 1 9.C TL 2 1 12.6 SL SYNGNATHIOAE UNIDENTIFIED		2.7 2.4 0.0 2.4 C.C 0.3 0.3 C.C
C 2 19 06 I CPHIUS AMERICANUS FACIFICYOPUS CIMBRIUS MERILICIUS BILINFARIS SCOMBER SCOMBRUS LIMANDA FERPUCINEA ADDITIONAL LARVAE CAUGHT	SAMPLING DEP TH C-15M 15 15 4.9 3.0-10.6 TL 15 15 8.0 3.0-36.7 SL 0 13 13 9.3 6.3-12.1 SL 4 3 2 5.7 5.0- 6.3 SL SYNGNATHIC ZE UNIOENTIFIEO	SAMPLING DEPTH 18-27M  10 9 5.1 4.2-6.7 SL 0 1 1 2.9 NL 0 0 43 25 5.2 6.7-12.2 SL	4.9 6.8 0.0 0.2 0.0 4.3 1.3
C 3 19 0 6  L CEMIUS AMERICANUS ENCHEL YOP LS CIMBRIUS GADLS MORHUA MEPLUCCIUS BILINEARIS T AUTOGOLA PRUS A OSPEPSUS SCOMBER SCOMBRUS SCOPHTHALMUS AQUOSUS GLY FTOCEPHALUS CYNOCLOSSUS L IMANDA E ERRUGINEA	SAMPLING DEP TH C-15M 2 2 3.7 3.2- 4.3 TL 116 28 8.0 3.4-31.2 SL 0 1 2 2 4.1 4.1- 4.2 NL 0 13 13 4.3 3.5- 5.2 TL 195 1E1 6.8 4.1-13.0 SL 2 4 4 4.9 3.7-6.1 SL 8 7 8.9 4.8-13.7 SL 57 25 9.8 5.5-14.6 SL	SAMPLING CEPTH 18-33M  25	0.7 43.1 C. C 1.3 C. C 0.7 0.0 4.3 65.0 0.7 1.3 4.1 57.4
C 4 19 0 € LOPHUS AMERICANUS FNCHELYCPUS CIMBRIUS GADLS MORHUA SCCHBER SCOMPPUS GLYFTOCEPHALUS CYNOGLOSSUS LIMANDA FERRUGINEA	SAMPLINC CEPTH 0-15M 6 6 4.7 3.8-6.6 TL 4 4 16.5 4.7-31.7 St 0 5 5 12.9 6.5-19.2 St 0 6 6 13.3 12.0-14.6 St 0 2 2 13.7 9.6-17.7 St 75 25 12.3 5.8-16.8 St	SAMPLING DEPTH 18-24M  1	1.9 1.3 0.0 1.7 0.0 1.9 0.0 1.6 29.2
C 5 19 0 &	SAMPLING OEPTH C-15M 4 4 5.4 4.6-11.8 TL 2 2 12.5 2.8-22.2 SL 0 1 1 17.2 SL 0 27 27 13.0 6.5-18.9 SL 0 4 4 10.5 8.7-14.2 SL 148 25 12.0 5.6-19.6 SL	SAMPLING CEPTH 18-23M 1 1 11.0 TL 11 11 6.7 3.3-15.1 SL 0 2 2 12.3 8.4-16.1 SL 0 1 1 7.1 SL 0 1 1 4.0 TL 19 19 10.4 6.7-17.1 SL 326 25 10.4 4.7-15.4 SL	1.5 4.3 0.0 1.0 0.0 9.0 0.0 0.3 7.5 153.1

TABLE 3, (continued)	0/		
CPUISE DATE  D66 7 1266  STA. D M SPECIES ANALYZED  C 6 19 206  BENIMOSEMA GLACIALE	NUMBER LENGTHS (MM) NO. TOTAL MEIS. MEAN RANCE MEAS. EGGS SAMPLING OPERTH 0-15M 3 2 6.6 5.5-6.7 SL	NUMBER LENGTHS (MM) NC. TOTAL MEAS, MEAN PANGE MEAS, EGGS SAMPLING CEPTH 18-33M	PER 10 M FGG S
OF MINISTER SERVICES LEFFIJS AMERICANUS FACHFLYORLS CIMBRIUS GATUS MORHJA MERIUCCIUS BILINEARIS TAUTOSTI APPUS AOSHERSUS	1 1 5.8 TL 21 21 9.7 3.7~25.8 SL 0 1 1 5.2 NL 0	36 36 5.0 2.4-12.6 SL 0 2 2 10.3 9.2-11.3 SL 0 5 5 5.7 5.1-6.3 NL 0	0.3 18.3 0.7 C.C 2.0 0.0
SCOMPHIAL MUS ADUDAUS  SCOMPHIAL MUS ADUDAUS  GLYFTOCEPHALUS CYMPICLOSSUS  LIMINDA FERRUGINFA  ADOLTIONAL LARVAE CAUGH	29 28 11.2 5.1-18.0 SL 0 3 3 5.5 4.3-6.6 SL 89 25 11.9 4.2-17.8 SL	3 3 6.2 4.2- 8.3 St 0 1 23 23 7.4 4.6-19.7 St 363 25 7.4 3.9-16.0 St UNIDENTIFIEE	9.7 C.C 0.3 8.6 147.7
C 7 19 CE  SENTHOSEM & GLACIALE  FNCHELYOPUS CIMBRIUS  CADUS MORHJA  MERIUCCIUS BILINEAR IS  SCOMBRUS  GLYFTOCFRHALUS CYNOCLOSSUS  LIMANDA FERRUCINEA  A ODITIONAL LARVAE CAUGH	SAMPLING DEPTH 0-15M 15 15 6.5 5.0- 7.5 SL 16 16 7.0 2.2-23.3 SL 0 1 1 8.4 SL 0 4 3 6.3 5.8-6.5 ML 0 26 26 9.8 3.9-17.6 SL 0 5 5 11.9 8.0-19.9 SL 242 25 9.4 4.9-18.7 SL	SAMPLING DEPTH 1E-23M  1 1 4.9 SL  0 0  2 2 1C.8 5.2-16.5 SL  3 1 17.0 SL  37 25 1C.6 4.4-17.8 SL  MYCTOPHIOAE	5.0 5.3 0.3 0.3 0.0 1.3 0.0 8.7 0.0 2.5 £4.9
C 8 19 CE LEPETUS AMERICANUS ENCHELYORUS CIMBPILS MERIUCCIUS BILINEARIS SCCHBER SCOMBEUS CLYPTICEPHALI'S CYNOGUNSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGH	SAMPLING OEPTH 0-15M 1 1 6.1 TL 2 2 4.5 4.7-5.1 NL 4 71 71 5.8 4.5-13.4 SL 0 1 1 12.0 SL 10 10 9.1 5.5-13.2 SL 7 MYCTOPHILAE UNIOENTIFIED	SAMPLING CEPT + 16-23M  1	0.6 0.3 0.7 1.5 23.7 0.6 5.0
T L 20 06  LIPHTUS AMERICANUS  ENCHELYDRUS IMBRIUS  TAUTOGOLABRUS ADSPERSUS  SCOPHTHALMUS ADUDNUS  AODITIONAL LARVAE CAUGH	SAMPLING DEPTH C-6M 2 2 5.3 5.3-5.3 TL 15 14 3.1 1.5-7.1 SL 4 3 2.C 1.9-2.1 TL 8 8 2.8 2.1-4.1 SL T SYNGNATHIOAE PALISTICAE TETRACOLINIDAE		0.2 1.8 0.0 0.5 1.0
D 2 20 06 LIPHIS AMERICANUS ENCHELYORUS CIM RPIUS SCOMMER SCOMMERUS LIMANDA FERRUCINEA ADDITIONAL LAPVAE CAUGH	SAMPLINC CEPTH 0-6M 5 5 6.6 4.1-13.0 TL 7 7 8.2 3.3-23.5 SL 0 2 2 9.7 8.4-11.1 SL 0 3 3 8.C 6.2-10.2 SL		0.6 0.8 0.2 0.0
D 3 20 06  1 OPHIUS AMERICANUS  FOCHELYCPUS CIMBRIUS  SCOMER SCOMBRUS  SCOPITHALMUS ADUONUS  1 MANDA FERRUCINEA	SAMPLING DEPTH 0-15M 2 2 9.5 7.0-12.0 TL 2 2 3.8 3.5- 4.0 SL 0 1 1 18.0 SL 0 3 3 2.6 2.5- 2.6 SL 7 6 10.0 5.7-14.1 SL		0.6 0.6 C.C 0.3 O.C 0.9 2.1
C 4 20.06 LOPHIUS AMERICANUS FACHELYORUS COMBRUIS SCOMBER SCOMBRUS LIPARIS INQUILINUS SCOMITHALMIS ADURNUS CLYPTICEPHALM S ADURNUS LIMANDA FERRUGINEA	SAMPLING DEPTH 0-15M 4 4 14.5 12.6-18.3 TL 2 2 18.4 18.0-18.8 SL 4 4 22.8 21.9-23.8 SL 0	SAMPLING OFFTH 18-24M  16 16 12.9 5.5-17.2 TL  29 29 9.3 3.0-30.5 SL  1 1 21.2 SL  0 TL  3 3 7.6 7.3-8.3 SL  6 6 11.3 8.4-20.0 SL  116 25 11.5 4.6-16.0 SL	3.8 5.3 0.0 1.4 0.0 0.2 0.5 1.0
CTA ELUCEDEPETE S CAND CEUZZ AZ ELUCEDE PETE S CAND CEUZZ AZ ELUZZ	SAMPLING GEPTH C-15M  3 3 17.7 16.7-18.9 SL 0 30 30 17.9 15.4-21.4 SL 0	SAMPLING CEPTH 18-33M 2 2 11.0 11.0-11.0 TI 9 7 12.9 4.6-23.0 SL 0 0 2 2 11.5 11.0-12.0 TL 5 5 9.1 6.8-10.7 SL	0.7 3.9 C.C 10.0 0.C 0.7 1.7
1 IMANDA FERRUGINEA	12 12 15.7 14.6-17.6 SL	219 25 4.5 5.0-14.7 SL	76 •6

CRUISE DATE  166 7 1966  STA. D. M. SPECIES ANALYZED  C. 6 20 06  LCPHIUS AMERICANUS  ENCHELYDPUS CIMBRIUS  UFDFHYCIS SP.  SCOMBER SCOMBEUS  GLYFTOGEPHALUS CYMOCLOSSUS	NUMEER LENGTHS (MMI NO. TOTAL MISS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15"  1 10.0 TL 4 23.4 17.0-28.7 SL 0 1 1 10.0 SL	**************************************	NO. PER 10M LAFVAE EGGS 0.3 4.2 0.0 0.3 13.4 0.0
LIMANDA FERRUGINEA  D 7 20 06 RENIMOSEMA GLACIA: F LCFHIJS AMERICANUS ENCHELYOPUS CIMBRIUS CADUS MORHUA SECHBER SCOMBRUS LIMANDA FERRUCINEA	52 25 15.3 7.2-17.4 SL  SAMPLING OEPTH 0-15M 1 1 9.2 2 2 7.6 5.3-10.0 TL 3 3 20.3 17.3-22.1 SL 0 24 24 17.9 12.9-21.5 SL 9 8 17.8 16.1-19.6 SL	481 25 13.4 5.0-17.3 St 	0.3 0.7 4.6 0.0 0.3 C.C 17.2 0.0
O R 20 C6 RENTHOSEM A GLACIALE CERATOSCOPELUS MADEFENSIS LOPHIUS AMERICANUS ENCHELYOPUS CIMBRIUS SCCMBER SCOMBRUS LIMANCA FERRUCINEA	SAMPLING CEPTH 0-15M 40 16 8.C 6.2- 9.4 5L 12 12 5.3 2.2- 6.3 SL 14 14 5.5 4.3- 9.0 TL 6 5 3.2 2.7- 3.7 SL 0 6 6 8.5 4.7-13.1 SL 0 3 3 10.2 9.8-10.6 SL	SAMPLING DEPTH 18-23M 18 9 7.6 5.5-10.6 St	18.0 4.0 4.7 2.0 0.0 2.0 0.0
F 1 29 06 BREVPORTIA TY FANNUS ANCHOA HERSETIS TAUTEGA ONITIS	SAMPLING OEPTH C- 3 M 1 1 13.7 TL 13 12 7.7 4.5-13.7 TL 2 2 5.7 4.8- 6.6 TL		0.1 0.8 0.1
F 2 29 06 ENCHELYCPLS CIMPRIUS TAU 10 GOLABRUS AO SPERSLS PRILNOTUS CARCLINUS SCCPHTHALMUS AQUONUS	SAMPLING DEPTH 0-6M  1 1 7.2 SL C  1 1 3.9 TL  2 2 3.4 3.3- 3.5 SL  1 1 5.4 SL		0.1 0.0 0.1 0.2 0.1
E 3 29 06 ENCIFELYMPUS CIMBRALUS TAUTOGA MNITIS TAUTOGA MNITIS TAUTOGOLABRUS AOSMERSUS PRICNOTUS CAROLINUS	SAMPLING CEPTH 0- 6M  1		0.1 C.C 0.1 0.1 0.1
F 4 20 06 LEPHIUS AMERICANUS ENCHEL YOPUS CIMBRIUS SCENERR SCOMERUS GLYFTOGEPHALUS CYWOCLOSSUS	SAMPLING DEPTH C-15 M 1		0.3 1.5 0.0 0.3 0.0
E 5 29 06 LOPETUS AMERICANUS ENCEPTUS CIMBREUS GANLS MARHUA CLYFTOGEPHALUS CYNOCLOSSUS LIMANDA FERRUGINFA	SAMPLING CEPTH 0-15M 1 1 31.0 TL 4 4 12.6 9.5-16.7 SL 0 0 35 25 10.7 6.0-16.1 SL	SAMPLING DEPTH 18-33M  3 3 31.5 26.7-40.2 St 0 1 1 17.6 2 2 7.8 6.6-8.9 St 88 25 8.4 4.9-15.4 St	0.3 2.2 0.3 0.7 54.8
E 6 29 06 LIPPHUS AMERICANUN FACHELY OPUS CIMBRIUS SCCIBER SCOMBIPUS GLY FTICEPHALUS CYMI GLOSSUS LIMANDA FERRUGINEA	SAMPLINC CEPTH 0-15M 2 2 18.5 14.0-23.0 TL 1D 1C 19.9 9.6-36.8 SL 0 18 1R 38.8 33.4-49.7 SL 0 2 2 12.8 10.6-15.0 SL 185 25 11.9 8.2-19.3 SL	SAMPLING DEPTH 18-33M  0 0 4 4 11.0 6.6-14.6 SL 229 25 6.3 5.1-12.7 SL	0.7 3.3 0.0 6.0 0.0 1.9
F 7 28 06 M YC TIPHIO AE L CPHIJS AMERICANUS SCC MER SCOMBRUS GLYPTICEPHALUS CYNDGLOSSUS LIMANDA FERRUCINEA	SAMPLING OEPTH 0-15M  1 1 17.0 TL 1 1 30.0 SL 0 3 3 20.1 14.8-26.7 SL 184 25 12.7 10.2-17.2 SL	SAMPLING DEPTH 18-33 M 4	1.3 0.3 0.3 0.3 2.2 96.2
F 8 28 06 REN BHO SEMA GLACIALE CEPETOS COPELUS MADEPENSIS SCCMBER SCOMBRUS LIMANDA FERRIGINEA ACDITIONAL LARVAE CAUCHT	SAMPLINC DEP TH C-15M 8 8 7.9 7.0-8.7 SL 20 20 5.5 4.3-6.5 SL 4 4 30.0 27.4-22.1 SL 1 1 12.4 SL	SAMPLING CEPTH 18-33M 3 1.3 6.4- 8.1 SL 1 1 25.1 SL 0 1 CCNGRIDAE	3.4 6.7 1.5 0.0

CPUISE DATE  DEG 7 1966  STA. D.M. SPECIES ANALYZED  F.1 28.06  ROEMODOTIA TYPANNIS  ANCHOA MITCHILLI  CYNOSCION SP.  MENTICIPRHUS SP.  PRICHOTUS CAPILINIS  S CCFHTHAL MUS AQUONUS  ADDITIONAL LARVAE CAUCHT	TE TRADOC NT IDAE	NO. PER 10 PER 1
F 2 28 C6  RREVOORTIA TYPANNUS  ANCHOA MITCHILLE  CYNCSCION SP.  MENTICIRPHUS SP.  TAUTOGA ONLTIS  TAUTOGALARRUS ADSPERSUS  PRICNOTUS CARCLINUS  HIPPOGLOSSINA DBLUNGUS  SCCENTHALMUS AUGUSUS  ADDITIONAL LARVAE CAUGHT	SAMPLING CEPTH 0-6M 2 2 8.0 8.0-8.1 TL 333 43 4.5 2.5-9.3 TL 25 25 2.9 2.5-4.0 SL 2 1 2.1 SL 2 2 3.2 2.9-3.6 TL 3 3 3.1 2.9-3.5 TL 3 3 3.3 3.0-3.5 SL 1 1 3.4 SL CPHIDIILEE ATHERINIDAE TETPADICATIDAE UNIDENTIFIED	0 .2 40 .4 3 .0 0 .2 0 .2 0 .4 0 .4 0 .1
F 3 28 06  ANCHOA HEPSETUS  ANCHOA HITCHILLI  MYCTOPHIDAE  UFORHYCIS CHUSS CYNOSCION SP. TAUTOGA ONITIS  PRICNOTUS CAPELINIS S COFHTHALMUS AUDINUS GIYFTOCEPHALUS CYNOCLOSSUS  A DOITIONAL LARVAE CAUGHT	SAMPLINC DEPTH C-15M  28 22 4.9 2.8- 7.8 TL  27 22 4.9 2.8- 7.8 TL  5 4 2.3 2.1- 2.5 SL  2 2 2.5 1.3- 3.7 NL  2 2 2.4 2.2- 2.6 SL  1 1 2.7 TL  6 6 2.6 2.1- 3.1 SL  11 10 3.2 2.2- 5.8 SL  1 1 10.3 SL  TETRADDONTIDAE UNIDENTIFIED	8.5 8.2 1.5 0.6 0.6 0.3 1.8 3.3
F 4 2R 06 LCFFLUS AMERICANUS ENCHELYOP LS CIMBRIUS UFSCHYSTS CHUSS TAUTOGOLA PRUS ADSPERSUS HIPFCGLESSINA DBLONCUS LIMANDA FERRUSTNEA ACDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15H 4 4 4.1 3.8- 4.8 TL 1 1 42.4 SL 0 5 5 2.1 1.4- 3.2 NL 1 1 3.1 TL 5 5 4.1 3.1- 5.4 TL 1 1 4.2 SL 1 1 5.7 SL	1.2 0.3 C.C 1.5 0.3 1.5 0.3 0.3
F 5 29 06  FRCHE YOPUS CIMBRIUS TAUTOGCLAERUS ADSPERSUS LIPPRIS INDUILINUS GLYFTOCEPHALLS CYNOGICSSUS LIMANDA FERRUGINFA	SAMPLING DEPTH 0-15M	0.3 (.( 0.7 0.7 1.7 40.3
F 6 28 36 MELANGGRAMMUS AEGLEFINUS LIMANDA FERRUGINEA	SAMPLING CEPTH C-15M  C  1 1 22.8 SL  0  1 1 6.7 SL	0.3 0.3
F 7 2P 06 MYCTOP HITAE CERATOSCOPELUS MADERENSIS LIDOHLUS AMERICANUS UFFCHYCIS CHUSS TAUTOGOLA BRUS ADSPERSUS CIVETOFERHALUS CYNOCLOSSUS LIMANDA FERRUCINEA	SAMPLING DEPTH 0-15M  2	C.3 O.7 O.3 3.0 O.3 O.3 6.6
C   28-26 A NOMINA METCHELLE CYNCSCION SP. ACOLTIONAL LARVAE CAUGHT	SAMPLING DEPTH 0- 3M 3 3 5.5 2.9- 7.7 TL 7 6 3.7 2.9- 4.4 SL UNIDENTIFIED	0 •2 0 •4

C 5 27 06 SAMPLING DEPTH C-15M SAMPLING CEPTH 1E-33M  RENTHDSEMA GLACIALE I 1 7.6 SL 3 3 4.8 4.1-5.4 SL 1.3  LCPHIUS AMERICANUS 5 4 22.9 13.9-30.0 TL 1.7  ENCHELYDPUS CHARRUS 2 2 28.1 27.6-28.5 SL 0 2 2 39.3 36.5-42.0 SL 0 0.3 0.  GADLS MORNUA SL 0 0.3 0.	М
CITHAZICHTMYS ARCHIFRENS  18 15 2.3 2.0 - 2.5 SL  HIFFORCESSINA DREWNOUS  2 1 3.3 SL  O.2  SCOPHTHAL MUS AQUONUS  ATOLI MAN LARVAE CAUGHT UNIDENTIFIED  C3 28 06  LCPHIUS AMERICANUS  1 1 3.6 TL  LCPHIUS AMERICANUS  1 1 2.8 TL  FTREPJS MICROSTOMUS  1 1 2.8 TL  ADOLI JONAL LARVAE CAUGHT UNIDENTIFIED  C4 28 C6  LCFHIUS AMERICANUS  1 1 2.0 SL  ADOLI JONAL LARVAE CAUGHT UNIDENTIFIED  C5 27 06  RENTHINGE ORD THE C-15M  LCHANDA FERRUCINFA  15 15 10.5 7.6-14.4 SL  C5 27 06  RENTHINGS MARRICANUS  C6 27 38 4.8 4.1 5.4 SL  C7 9 0.  C8 27 10.6 MERICANUS  C7 9 0.  C8 27 10.6 MERICANUS  C8 27 10.5 T.6-14.4 SL  C9 11 1 7.6 SL  C9 11 1 7.6 SL  C9 13.9-30.0 TL  FROMER SCOMBRUS  C9 13.9-30.0 TL  FROMER CANUS  C9 13.9-30.0 TL  FROMER COMBRUS  C9 13.9-30.0 TL  C9 13.9	
C 3 28 06 SAMPLING DEPTH C- 6M LEPHUS AMERICANUS 1 1 3.6 TL 0.1 TAU 10GA DOI: 1 1 2.8 TL 0.1 TAU 10GA DOI: 11 2.8 TL 0.1 SCIPPINS AMERICANUS 1 1 2.3 SL 0.1 SCIPPINS AMERICANUS 1 1 2.3 SL 0.1 SCIPPINS AMERICANUS 1 1 2.3 SL 0.1 SCIPPINS AMERICANUS 1 1 1 2.3 SL 0.1 SCIPPINS AMERICANUS 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
LEMIUS AMERICANUN 1 1 3.6 TL TAUTIGA ONITIS 1 1 2.8 TL SCOPHTHALMUS AQUICUS 1 1 2.3 SL ADDITIONAL LARVAE CAUCHT UNIDENTIFIED  C 4 28 C6 SAMPLING DEPTH C-15M LEFFUS AMERICANUN 1 1 14.C TL SCEMBER SCOMBRUS 26 26 34.5 28.3-44.1 SL 0 7.9 0. LIMANDA FERRUCINFA 15 15 10.5 7.6-14.4 SL 0 7.9 0.  C 5 27 06 SAMPLING DEPTH C-15M SAMPLING CEPTH 1 6-33M RENTHOSEMA GLACIALE 1 1 7.6 SL 3 3 4.8 4.1-5.4 SL 1.3 LEMIUS AMERICANUN 5 4 22.9 13.9-30.0 TL ENCHUS AMERICANUN 5 4 22.9 13.9-30.0 TL ENCHUS AMERICANUN 6 1 1 1 7.6 SL 3 3 4.8 4.1-5.4 SL 1.3 LEMIUS AMERICANUN 7 5 4 22.9 13.9-30.0 TL ENCHELYOPUS CHABRIUS 2 2 28.1 27.6-28.5 SL 0 2 2 39.3 36.5-42.0 SL 0 1.3 0. GADIS MORNUA	
LEMIUS AMERICANUN 1 1 3.6 TL TAUTIGA ONITIS 1 1 2.8 TL SCOPHTHALMUS AQUICUS 1 1 2.3 SL ADDITIONAL LARVAE CAUCHT UNIDENTIFIED  C 4 28 C6 SAMPLING DEPTH C-15M LEFFUS AMERICANUN 1 1 14.C TL SCEMBER SCOMBRUS 26 26 34.5 28.3-44.1 SL 0 7.9 0. LIMANDA FERRUCINFA 15 15 10.5 7.6-14.4 SL 0 7.9 0.  C 5 27 06 SAMPLING DEPTH C-15M SAMPLING CEPTH 1 6-33M RENTHOSEMA GLACIALE 1 1 7.6 SL 3 3 4.8 4.1-5.4 SL 1.3 LEMIUS AMERICANUN 5 4 22.9 13.9-30.0 TL ENCHUS AMERICANUN 5 4 22.9 13.9-30.0 TL ENCHUS AMERICANUN 6 1 1 1 7.6 SL 3 3 4.8 4.1-5.4 SL 1.3 LEMIUS AMERICANUN 7 5 4 22.9 13.9-30.0 TL ENCHELYOPUS CHABRIUS 2 2 28.1 27.6-28.5 SL 0 2 2 39.3 36.5-42.0 SL 0 1.3 0. GADIS MORNUA	
C 4 28 C6	• •
1.   1	
C 5 27 06 SAMPLING DEPTH C-15M SAMPLING DEPTH LE-33M  RENTHOSEMA GLACIALE 1 7.6 SL 3 3 4.8 4.1-5.4 SL 1.3  LCPHIUS AMERICANUS 5 4 22.9 13.9-30.0 TL 1.7  ENCHELYOPUS C14BRIUS 2 2 28.1 27.6-28.5 SL 0 2 2 39.3 36.5-42.0 SL 0 1.3 0.  GADIS MORHUA 0 1 11.3 SL 0 0.3 0.  SCOMBER SCOMBRUS 4 4 36.2 33.9-38.6 SL 0 0 1.3 C.  GLYFTOCEPHALUS CYNOCLOSSUS 1 1 17.5 SL  LIMANDA FERRUGINFA 105 25 12.1 7.8-15.1 SL 59 25 12.1 5.E-17.6 SL 51.2	0.0
### AFRITANSEMA GLACIAFE	• •
FNCFELYOPUS C14BRIUS 2 2 28.1 27.6-28.5 SL 0 2 2 39.3 36.5-42.0 SL 0 1.3 0. GADLS MORHUA 0 1 11.3 SL 0 0.3 0. SCOMBER SOMBRUS 4 4 36.2 33.9-38.6 SL 0 5 0 1.3 C. GLYFTOCEPHALUS CYNOCLOSSUS 1 1 17.5 SL 0.3 LIMANDA FERRUGINFA 105 25 12.1 7.8-15.1 SL 59 25 12.1 5.E-17.6 SL 51.2	
S COMBER S COMBRUS       4       4       36.2       33.9-38.6       SL       0       0       1.3       C.         G LYFTDC EPHALUS CYND CLOSSUS       1       1       17.5       SL       0.3       0.3         L [MANDA F ERRUGINEA       105       25       12.1       7.8-15.1       59       25       12.1       5.E-17.6       SL       51.2	0.C
LIMANDA FERRUGINFA 105 25 12.1 7.8-15.1 SL 59 25 12.1 5.E-17.6 SL 51.2	c. c
G 6 27 06 SAMPLING DEPTH 0-15M SAMPLING DEPTH 1E-33M	
BENTHOSEMA GLACIALE 13 13 5.5 4.9-6.9 SL 4.3 CERATOSCOFFLUS MADEFENSIS 3 3 7.6 5.4-8.5 SL 1.0	
EMPETUS AMERICANUS 3 3 8.0 4.4- 9.9 TL 1.0	С.3
1 I MANDA FERRUGINEA 8 8 10.1 7.7-13.2 SL 6 6 5.5 8.7-10.4 SL 4.4	
H 1 27 06 SAMPLING DEPTH 0- 3M	
ANCHIA MITCHILLI 1915 148 4.4 1.7-6.9 TL 116.0 CYNCSCICM SP. 2 2 2.7 2.1-3.4 SL 0.1	
	0.2
PEPRILUS IPLACANTHUS         1         1         12.3         SL         0.1           PRIONATUS CAPOLINIS         2         2         4.4         4.4         SL         0.1	
ACDITIONAL LARVAE CAUCHT UNIDENTIFIED	
F 2 27 06 SAMPLING DEPTH C- 6M ANCHOM MITCHILLI 514 °6 5.0 2.8- 7.1 TL 62.3	
CENTROPRISTIS STRIATA 1 1 4.6 SL 0.1 CYNTSCIEN SP. 2 2 3.0 3.0-3.0 SL 0.2	
M FN TYC TOR HLS SP. L9 18 2.6 2.1- 3.2 St 2.3 TAUTOGA ONITIS 19 15 4.1 2.5- 6.3 TL 2.3	
	0.0
PRIONITUS CARCUINIS 19 19 4.2 3.1-6.1 SL 2.3 ETROPUS MIGROSTOMUS 38 24 2.7 2.0-4.3 SL 4.6	
HIPFOSICSSINA OBLONCUS 13 12 3.6 2.5- 4.7 SL 1.6 A ODITIONAL LARVAE CAUGHT SYNGNATHIOAE	
UR ANOS CC F I CA F BLE NN I C / E STROMA TE I DAE	
UNIDENT IFFED	
H 3 27 06 SAMPLINC DEPTH 0- 6M	
ANCHOR METICHTELT 65 61 4.4 1.4- 6.3 TE 7.9 CYNISCION SP. 1 1 3.2 SE 0.1	
MENTICIRPHUS SP. II 11 2.7 2.3- 3.1 St 1.3 TAUTOGA ONITIS I 1 5.0 TL 0.1	
PEL (NOTUS CAPICLINUS 2 2 3.9 3.3- 4.5 SL 0.2	
ETRCPUS MICRO STOMUS 3 3 3.1 3.0 - 3.2 St 0.4 HIFFOGLOS SINA ORGANIOS 13 13 3.4 2.7 - 5.5 St 1.6	

TABLE 3. (continued)	91	
CRUISE DATE C66 7 1966 STA. 7 M SPECIES APALYZED + 4 27 06 UFDEHYCIS CHLSS MENTICIREMIS SP. TAUTCGA ONITIS PRICNOTUS CAROLINUS ETREPJS MICROSTOMUS HIPFOGLOSSINA OBLUNCUS LIMANDA FERRUCINEA ADDITIONAL LARVAF CAUCHT	NUMBER LENGTHS [MM] NO. TOTAL MEJS. MEAN RANCE MEAS. EGGS SAMPLING OEPTH C-15M  2 1 3.1 NL 1 1 2.2 SL 1 1 4.4 TL 5 5 2.6 1.8-3.7 SL 1 1 3.4 SL  STROMATEICAE UNIDENTIFIED	NO. PER 10M LAFVAE EGGS 0.6 0.3 0.3 1.6 1.0 0.3
LOPPELS AMERICANUS PET CNOTUS CARCLINUS LIMANOA FERRUCINEA ACOIT IONAL LA PVAE CAUGHT	SAMPLING CEPTH 0-15M  SAMPLING OEPTH 16-33M  1 1 31.5  TL  8 8 6.9 6.4-10.1 SL  UNIOENTIFIEC	0.3 0.3 2.7
H 6 27 06 BENTHOSEM / GLICIALF LOPHIUS AMERICANUS ENCHELYCPUS CIMBRIUS MERLUCCIUS BILINEARIS SCCMBER SCOMPRUS LIMANDA FERRUGINEA A DOITTONAL LARVAE CAUGHT	SAMPLING OEPTH C-15M  SAMPLING CEPTH 18-33M 7 6 6.5 6.C- 7.4 SL  1 1 4.5 TL  0 1 1 7.7 SL 0 1 1 6.3 NL 0 1 1 15.5 SL 0 0 10 10 8.0 4.4-10.2 SL  MYCTOPHICAE UNIOENTIFFED	2.3 0.3 0.3 C.C 0.3 O.C 0.3 C.C
F 7 27 06  MYC TOPHID AE  BENTHOSEMA GLACIAI E  UFCPHYCIS CHUSS  MERLUCCIUS BILINEAR IS  ACOIT IONAL LARVAE CAUCHT	SAMPLING OEPTH 0-15M  SAMPLING OEPTH 18-33M  3 3 6.1 5.5- 7.4 SL  1 1 10.5 SL  1 1 1.4 NL  UNIDENTIFIED  UNIDENTIFIEC	1.0 1.3 0.3 0.0 C.3
J 1 26 06 ANCHOM MITCHILLI ADDITIONAL LARVAE CAUGHT	SAMPLING OEPTH C- 6M 247 57 4.9 2.8- 7.0 TL SYNGNATHIDAE	29.9
J 2 76 C6 ANCHOM MITCHILL I C YNCSCION SP. PRICNOTUS CAPOLINUS CITHARICHTHYS ARCTIFRONS FIROPUS MICRO STOMUS HIPFOGLOSSINA OBLUN (US ADDITIONAL LARVAE CALCHI	UNIOENTIFIED	155.0 0.7 0.5 0.5 0.1
J 3 26 06 ANCHOA MITCHILLI MENTICITRHUS SP. SARCA SAROA PRICNOTUS CAPOLINUS HIPPOGLOSSINA OBLONCUS ADOIT DONAL LARVAE CAUGHT		14.8 0.4 0.0 1.1 0.4 0.2
J 4 26 C6  ANCHOA MITCHILL I  URDAHYCIS CHUSS MENTIFIARHUS SP. TAUTIGA ONLITE SARIA SARDA PEPEILUS TRIACANTHUS PRICNOTUS CARCLINHS ETREPUS MICROSTOMHS HIFFCGLCSSINA OBLINICUS ADDITIDNAL LARVAE CALGHT	SAMPLING DEPTH C- 6M 57	6.9 0.5 0.6 1.5 0.5 0.7 28.3 5.0 4.2
J 5 26 06  MENTICIRRHUS P. TAUTICA ONTITS PEPPITUS TRIACANTHUS ETREPUS MICROSTOMUS HIFFOGLISSINA ORLUNCUS ADOITIONAL LARVAE CAUGHT	SAMPLING CEPTH C-15M 1	0.3 0.9 1.5 1.5 0.3

TABLE 1. (continued)		92		
CPUISE DATE P66 7 1966 STA. DM SPECIES ANALYZED J6 27 P6 ANCHOA MITCHILLI	SAMPLINC DEP TH 0-15M	NO. MEAS. EGCS	NUMBER LENGTHS (MM1 ND. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 18-24M 1 1 4.7 IL	PER 10 PER 10 PEGG S
RENTHOSEMA GLACIAI E LIFHIUS AMERICANUS ENCHELYOPUS IMBRIUS UFICHYCIS CHUSS LIMANOA FRRUCINEA	7 7 6.6 6.1- 7.2 1 1 10.0 5 4 2.9 2.5- 3.2	TL 0	3	2.7 0.3 0.3 C. ( 1.6
	• • • • • • • • • • • • • • • • • • • •		* * * * * * * * * * * * * * * * * * * *	
J 7 27 06 PENTHOSEMA GLACIALE LCPHIUS AMERICANUS PRICNOTUS CAPOLINUS LIPARIS INQUILINUS GLYPTOCEPHALUS CYNOGLESSUS LIMANOA FERRUCINFA	SAMPLINC DEPTH 0-15M 6 6 6.7 6.4-7.6 1 1 19.0 1 1 3.1 3 2 12.1 8.7-15.5 56 25 10.4 7.5-13.3	TL SL SL	SAMPLING DEPTH 18-33M  1	2.0 0.3 0.3 0.3 1.0
K 1 26 06	SAMOLIAC PROTU O (N		• • • • • • • • • • • • • • • • • • • •	• • • • • • • •
SARTA SARTA	SAMPLING CEPTH 0-6M	16		0.0 1.9
K 2 25 06	SAMPLING DEPTH C-15M			
A NCHOA MITCHILLE S AP TA SAR DA S TP CPUS MICROSTOMAS HIPPOGLOSSINA DBLUNCLS A DOIT IDNAL LARVAE CAUGHT	29 29 3.3 1.5- 6.8  1 1 2.0 1 UPANOSCOPICAE	TL 8		8.8 0.0 0.3 0.3
	UNIDENTIFIED			
K 3 26 06 ANCHIA MITCHILLI SAPEA SAPEA FIREPUS MICHTENUS HIPFOGLESSINA DRUNCUS ACDITIONAL LAPVAE CAUCHT	SAMPLINC CEPTH 0-15M 14 11 5.6 2.5-8.1 1 1 3.3 1 1 2.3 2 1 2.6 COBIIDAE UNIDENTIFIED	TL SL O SL SL		4.2 0.3 0.3 0.6
K 4 76 C6  1 CEPTUS AMERICANUS  UPD FHYCIS CHUSS  TAUTDGA ONITIS  PEPFILUS TRIACANTHUS  PRIONITUS CAPOLINUS  ACTIUS CELLATUS  FIPEPUS MICPOSTOMIS  HIPPOGLOSSINA OBI HN CUS  GEYFTOCEPHALUS CYMOCLOSSUS  LIMANDA FERRUGINFA  ACDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M 2 2 4.3 4.3- 4.3 1 1 1.9 5 5 4.1 3.6- 4.7 19 19 4.9 2.6-15.0 3 3 3.4 2.8- 4.0  24 22 3.3 2.4- 4.3 10 1C 4.5 2.7- 6.9 UP ANOS COPICAF CC8 (1DAE STROMA TEICAE UNIDENT IF HID	NIL TL SL SL	SAMPLING DEPTH 16-24M  4 4 11.6 5.8-17.5 SL  1 1 4.6 SL  1 1 14.6 SL  SYNODENTICAE	0.6 0.3 1.6 6.5 1.0 0.2 7.8 3.2 0.3
к 5 25 06	SAMPLING DEPTH 0-15M		SAMPLING DEPTH 18-24M	
L CPHIUS A MERICANUS FNOHELYDPUS CIMBRIUS TAUTOGOLABPUS ADSPEFSUS S COMBEP S COMBRUS PEPRILUS TRIACANTHUS GLYFTJCFPHALUS CYND GLOSSUS L IMANCA FERRUCINFA	2 2 15.2 14.0-16.5  1 1 4.3 1 1 29.1 3 3 6.9 5.8- 9.0 1 1 11.0 1 1 14.1	0 TL SL 0	1 1 41.0 SL 0 2 2 27.0 25.7-28.3 SL 0 1 1 4.4 SL SL 1 1 42.7 SL	0.6 0.2 0.3 0.6 C.C 1.1 0.5 0.5
× 6 25 06	SAMPLING DEPTH 0-15M		SAMPLING CEPTH 18-33M	
RENTHOSEMA GLZCIALE LOPHUS AMERICANUS ENCHELYOPUS CIMBRIUS UPORHYCIS CHUSS MERLUCCIUS BILINEAR IS TALTOGOLARRUS ADSPERSUS LIMANDA FERRUCINEA ADOLTIONAL LARVAE CAUCHT	5 4 7.6 6.7- 8.2 2 2 5.8 4.7- 6.9 6 4 3.0 2.1- 3.9 1 1 7.8 1 1 6.2 20 20 10.3 8.5-13.6	TL O NL O TL SL	1 1 7.1 SL 1 1 4.6 TL 1 1 4.9 SL O 0 34 25 1C.2 6.5-15.1 SL CYCLCTHDNE SP. GOBIIDAE	1 .8 0.9 0.3 2.0 0.3 0.3 0.3 17.3
K 7 25 06 UPOPHYCIS CHLSS ACDIT IONAL LARVAE CAUCHT	SAMPLING CEPTH 0-15M	NL NL	SAMPLING DEPTH 12-33M SERRANIDAE	0.3

CRUISE DATE 166 7 1966 STA. D.M. SPECIES ANALYZED 11 23 C6 ANCHOA MITCHILLI CYNCSCION SP. PEPRILUS TRIACANTHUS ETPCPUS MICROSTOMUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-6M 14 14 4.8 1.2-7.7 TL 1 3 3 3.5 3.2-4.0 SL 3 3 2.8 1.9-4.2 SL SYNCDCATIC AE SYNGNATHID AE RLENNIII AF GDBIID AE	NUMBER LENGTHS (MM) NO. TETAL MEAS. MEAN RANGE MEAS. EGGS	PER 10 PE
L 2 22 06 ANCHOA MITCHILLI CYNCSCION SP. PEPRILUS TRIACANTHUS PRICNDTUS CAROLINUS E TROPUS MICROSTOMUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUCHY	CPHIDITE AE GOBITO AE TRIGLICAE UNIDENTIFIFO		2.9 0.1 1.0 0.1 1.8 0.2
L 3 22 C6  ANCHDA MEPSETUS MYCTOPHID AE BENTHOSEMA GLACIALE LCPHIUS AMERICANUS UPOPHYCIS CHUSS CENTROPRISTIS STRIATA PEPRILUS IRIACANTHUS CITHARICHTHYS ARCHIFRONS ETROPUS MICROSTOMUS HIPPOGLOSSINA ORLONGUS ADDITIONAL LARVAE CAUGHT	MUGILICAE Unioentified	SAMPLING DEPTH 16-24M  1	1.6 0.6 0.2 1.0 0.6 0.3 20.3 0.3
L 4 22 06  SARTINELLA ANCHOVIA  MYCTOPHID AE  DIACHUS SP.  LCEHIUS AMERICANUS  ENCHELYOPUS CIMBRAUS  PEPFILUS TRIACANTHUS  RCTHUS OCELLATUS  ETROPUS MICROSTOMUS  HIPPOGLOSSINA DBLONCUS  A ODITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 2 2 14.7 13.8-15.6 TL 1 1 3.8 SL 6 6 4.8 3.8- 5.7 TL 1 1 4.0 SL 5 5 3.2 2.4- 4.3 SL 4 4 5.C 4.1- 5.8 SL 1 1 6.7 SL SYNDDENTICAE LABRIDAE OR SCAPIDAE GOBIIDAE BALISTIDAE UNIDENTIFIED	SANPLING CEPT	0.7 0.3 0.3 3.1 1.3 5.8 0.3 1.5 9.3
L 5 22 D6 A NCHOA HEPSETUS PINTHOSEMA GLACIA E LCPHIUS AMERICANUS ENCHEL YOPUS CIMBRIUS UFCHYCIS CHUSS MENTICIRPHUS SP. PEPPILUS TRIACANTHUS E TROPUS MICROSTOMUS HIPPOGLOSSINA DBUINGUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT	SAMPLINC DEP TH C-15M 5 5 8.1 4.9-12.6 TL 1 1 7.4 SL 6 6 6.3 4.6- 9.4 TL 1 1 4.1 NL 30 3C 4.2 1.9- 7.3 SL 6 5 4.7 3.6- 6.2 SL 5 5 4.5 3.1- 6.4 SL	SAMPLING CEPTH 18-33M  2 2 5.5 5.3- 5.8 SL 1 1 5.4 TL 1 1 4.1 SL O  1 1 4.1 SL O  1 1 2.8 SL 2 1 13.7 SL OPHIDIIDAE GUBIICAE BALISTIDAE UNIDENTIFIEC	1.7 1.0 2.1 0.3 0.3 0.3 10.0 2.0 1.8 0.7
MI 23 06 MENTICIRPHUS タ.	SAMPLING DEPTH C- 6M 1 1 3.4 SL		0 .1

TABLE (Conclinaca)			
CRUISE DATE	******** LAR\AF ************************************	********* LARVAE ********* NUMBER LENGTHS (MY) NO.	NO. PER 10M
P66 7 1966	TOTAL MERS. MEAN RANCE MEAS. EGGS	TOTAL MEAS. MEAN RANGE MEAS. EGGS	LARVAE EGGS
STA. D.M. SPECIES ANALYZED  M. 2. 23.06	SAMPLING DEPTH C-15M	TOTAL MEAS. MEAN HANGE MEAS. COOS	CHANNE FOOS
M 2 23 06 FNSRAHLLIS EURYSTOLF	1 1 15.1 Tt		0.3
AACIUSHIDVE	1 1 3.7		0.3
	2 2 3.1 2.9- 3.4 51		0 •6
CYNCSCION SP. FARIMUS FASCIATUS	1 1 3.7 St	•	0.3
MENTICIAR HUS SP.	5 5 3.4 2.4- 4.6 SL		1.5
PEPPILUS TRIACANTHUS	I 1 3.3 SL		0.3
CYMPHIRUS CP.	1 I 2.8 St		C • 3
APDITIONAL LARVAE CAUCH			
ALDI IIII CANTAC CASCI	FARALE FICICAF		
	OPHIOIICAE		
	STROMATEICAE		
	BALISTIC AF		
	TE TRADOLINT LOAE		
м з 23 06	SAMPLING DEPTH C-15 M		
ักริษโกษาหมร ๑๓พธรา	3 3 2A.A 24.5-31.5 TL		0.9
SARTINELL A ANCHOVIA	2 2 8.8 7.0-10.7 TL		0.6
FACRAULIS FURYSTALE	22 27 8.5 3.9-17.7 TL		6.7
MING TOPHIO AE	2 1 4.6 SL		0.6
CERATOSCOPELUS MADERENSIS	12 12 5.4 3.5- 7.0 SL		3.6
CERATOSCOPELES WARMINET	1 1 7.6 St.		0.3
CIAPHUS SP.	1		0.3
MYCTOPHUM AFFINE	3 3 5.4 4.0- 6.8 SE		P• 0
PUNALIN > AIHTMAPAH	2 2 3.4 3.0- 3.9 SL		0.6
AUX IS SP.	186 183 4.5 3.1-10.5 St		€.4
FLIHYNNUS ALLETTERATUS	1 1 6.8 SL		0.3
THUNNUS ALBACARES	1 1 7•1 St		0.3
THURNUS PEESIIS OF ATLANTICUS	1 1 6.1 SL		0.3
PEDRILUS TRIACANTALS	2 2 3.3 2.5- 4.1 SL		0.6
ALL HIS DO FLE ATUS	12 12 5.7 3.5- 7.4 St		3.6
CACEMPSET TA FIMBRIATA	1 1 3.8 SL		0.3
ETROPUS MICROSTOMUS	2 2 3.1 2.9-3.3 SL		0.6 4.5
SYACTUM PAPIL LOSUM	15 15 4.3 2.1- 8.2 St 3 3 4.6 3.0- 6.7 St		0.9
SYMPHURUS SP.			0.,
A EDIT TONAL LARVAE CAUGH	CYCLOTICNE SP.		
	SYNODENTIE &E		
	PARAL EPICICA E		
	LOPHITECEMES		
	SYNGNA THID AE		
	SERP AN ICAE		
	APOG CNIC/E		
	CARANGICAE		
	CORY PHAENICA F		
	SPARIDAE		
	LABRIDAE OR SCARIDAE		
	MUGILIERE		
	BLENNIICAE		
	GOBIIOAE		
	SC CRPAEN 1E AE		
	BALISTICAF		
	TETRADICAT IDAE		
	LNIDENTIFIED		

CRUISE DATE 066 7 1966	NUM	ee F	LE	ME *****	ND .	NUME	BER	L	VAE ***** ENGTHS (MM	NO.	ND. PER 10 P	
STA. D M SPECIES ANALYZED					MEAS. EGGS	TCTAL				MEAS. EGGS	LARVAE EGGS	
M 4 23 06 MEGALOPS ATLANTICA	SAMPLI	NC DE	P 1 H 0	- 15-		SAMPLIN		10.5		NL	0.3	
A18LLA VILRES						2		20.0		NL NL	0.7	
OPHICH THUS GOMEST						2			18.C-24.7		0.7	
SARCINELL A ANCHOVIA	1	1	10.6		J.L.				1016 2411	,,,	0.3	
FINGRAULIS EURYSTOLE	45	43	8.2	3.2-20.7	_	14	14	٠, ٤	2.6-15.1	TI	18.2	
MYCTOPHIDAE	9	9	4.6	2.6- 6.4		• •		• •			3.0	
BENTHOSEN A SUBDRRAT ALE	i	i	4.8		SL	1	1	5.1		51	0.6	
CEPATO SCOPEL US MADERENSIS	3	3	7.4	6.6- 8.3		1	1	10.9		SL	1.2	
CIATHUS SP.	1	ì	4.5		SL	4	4		3.9- 7.5		1.6	
LAMFANYCTUS ALATUS OR PHOTONOTUS	1	1	5.4		SL	1	1	5.1		SI	0.6	
LAMPANYCTUS CUPRINUS						1	1	6.2		SL	0.3	
MYC TOPHUM SEL ENORS	1	1	4.3		SL						0.3	
HROPHYCIS CHUSS	1	1	2.4		NL						0.3	
FEMANTHIAS VIVANUS	l	1	4.1		SL	1	t	6.0		SL	0.6	
LARIMUS FASCIATUS	1	1	3.9		SL						0.3	
AUY IS SP.	143	13C	5.2	3.4-12.6		35	35	6.4	4.0-10.4	SL	54.6	
THUMNUS TRESUS OF A TLANTICUS	1	ı	6.3		SL						0.3	
TEURNUS THYNNILS	1	1	9.3		SL						0.3	
PEPFILUS TRIACANTHUS	3	3	2.E	2.5- 3.5							1.0	
RICTHUS OCELLATUS	41	25	6.4	3.5-10.2		15	14		3.5-14.0		17.3	
FTRCPJS MICROSTOMNS	3	2	4. 4	3.7- 5.C		2	2		3.7- 3.9		1.6	
SYACIHM PAPILLOSUM	4.8	47	5.4	2.8-11.1		2 C	2 C		1.9- 5.4		21.1	
SYMPHURUS SP.	4			3.7-10.7	St	4	4	5.5	3.3- 7.7	SC	2.5	
A COIT IONAL LARVAE CAUCHT						MURAENI		-				
	CYCLCT					OPHICH1						
	SYNODD FARALE					C YC L CTH SYNDODN						
	PYCTOP		A C			PARALER						
	BREGMA		I DA E			LOPHII						
	CPHLDI	-	UAL			BREGMAC		-				
	FISTUL		A F			FISTULA						
	SEPRAN		4.			SERRANI						
	APCGON					MALACAN		S.D.				
	CARANG					LABRICA			TCAF			
	CORYPH		ΔF			CALLION		-				
	SPAPID					GD811D4						
	FCMACE	NTFIL.	ΑE			ISTIOPH		AF				
	LABRID	AE DR	SCARI	CAE		SCORPA	EN I [ A	E				
	MUGILI	CAE				DAC TYLE	OP TER	LS VC	LITANS			
	BLENNI	TE #E				BAL IST	DAE					
	CALLIG	NY#IC	ΔE			TETRADI	DONTE	CAE				
	COBIIO	ΔE				UNIDENT	TEFE	D				
	STROMA		-									
	SCORPA		Ε									
	TRIGLI											
	DAC TYL		rs ACT	ITANS								
	BALIST											
	TE TRAD											
	UNIDEN	(IFIE	J									

TABLE 3. (continued)	70		
CPUISE DATE  166 7 1966  STA. D. M. SPECIES ANALYZED  N. S. 23 06  NEGALIPS ATLANTICA  OPHICHTHOSE  AFT FPICHTUS KENDALLI  CALLECHELYS PERRYAE  MYRICHTHYS SP.  SHICHTHIJS GOMESI  FNGRAULIS EURYSTDLE  NYCTOPHIDAE  CFRATOSCIPELLS MADERENSIS  CFRATOSCIPELLS MADERENSIS  CFRATOSCIPELLS MAMMINGT  DIA PHUS SP.  LAMPADENA SP.  HEMMITHIAS VIVANUS  LARIMUS FASCIATUS  ALXIS SP.  FLITHYNUS ALLETTERATUS  KATSUMONUS PELAMIN  SCLABE FCMCRUS CAVALLA  THUNNUS THYNNIS  PIPPFILUS TRIACANTHUS  ROTHUS OF ELLATUS  CYCLOSETTA FIMBRIATA  FTEIPUS MICPOSTOMIS  MONDIENE SESSILICAUGA  SYACTUM PAPILLIBUM  CYMFHURUS SP.  ACDITIONAL LARVAE CAUGHT	NUM EER LENGTHS (MM) TOTAL MIES. MEAN RANCE MEAS. EGCS SAMPLING DEPTH C-15M 2 2 10.4 9.0-11.6 NL 1 1 37.C TL  1 1 58.0 TL  2 2 39.5 25.0-54.0 TL  1 34 23 7.7 2.0-13.7 TL  4 4 4.6 4.0- 5.C SL 4 5.8 5.1- 6.7 SL 2 2 5.6 5.5- 5.7 SL 9 9 6.1 4.1- 9.7 SL 2 2 5.5 5.3- 5.7 SL 9 8 5.2 3.6- 8.2 SL 2 2 3.5 3.3- 3.7 SL 193 162 5.4 2.8- 9.7 SL 2 2 6.8 5.4- 8.2 SL 5 5 5.9 5.1- 6.5 SL 1 1 5.4 SL 1 2 1 4.6 2.2- 7.0 SL 4 2 25 5.7 3.4- 9.4 SL 5 5 5 6.6 3.0-11.0 SL 3 3 4.5 3.3- 5.7 SL 2 2 9.4 8.6-10.1 SL 100 25 4.5 3.0- 9.4 SL 23 19 5.4 3.3-10.7 SL 1 CONGRIDAE CYCLOTHENE SP. STEMIATICAE SPHYRACHER ENERGHACEFETICAE COPHIBICICE CORYPHAENICAE SPHYRACHICAE SPHYRACHICAE CORYPHAENICAE CARRANGIL/E HOUGENTRICAE SERRANICAE CORYPHAENICAE CARRANGIL/E SCORPAENICAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE CALLIONYMILAE GOBILOAE CALLIONYMILAE GOBILOAE CALLIONYMILAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE STROMATIICAE CALLIONYMILAE GOBILOAE CALLIONYMILAE CALLI	NUMBER LENGTHS [MM]  TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING CEPTH 18-33M  1	ND. PER 10M LEEVEE EGGS  0.7 C.3 0.3 0.3 1.6 44.7 4.9 1.5 1.9 4.0 0.7 69.9 0.9 1.7 0.7 0.3 4.0 28.9 1.7 2.9 0.9 24.7 8.6
N 1 24 06 ANCHOM HEFSETUS FNOFAJUS EURNYSTOLF LARIMUS FASCIPTUS PEPRICUS TRIACANTHUS PEITHOTUS CARCLINUS RCTHUS OF ELLATUS SYACTUM PAPILLOSUM ACOITIONAL LARVAE CAUCHT	SAMPLINC CEPTH C-15M  1 1 13.5  LO 10 11.8 5.8-16.5 TL  1 1 3.1 SL  13 11 2.7 1.5- 4.4 SL  38 28 3.3 2.5- 4.8 SL  1 1 13.8 SL  1 CYCLOTHENE SP.  SYNODON TILE AE  CARANGILAE  SCIAEN II AE  GOBILIDAE  TRICHIURICAE  TRICHIURICAE  TRICHIURICAE  TRICHIURICAE  TETRADECNT IDAE  UNIDENTIFIED		0.3 3.0 0.3 3.9 11.5 0.3
N 2 24 C6 SIR(INELLA ANCHOVIA PERRILUS TRIACANTHUS PPICNOTIS CARILINUS PIETEROUS MICRICSTOMUS SYACTUM PARILLOSUM ACDITIONAL LARVAE CAUCH	SAMPLING DEPTH 0-15M 2 2 12.1 8.1-16.2 TL 4 4 2.4 1.8-3.4 SL 10 10 2.9 2.2-3.5 SL 1 1 2.0 SL		0.6 1.2 3.0 0.3

CRUISE OATE 066 7 1966 STA. D.M. SPECIES ANALYZED N.3 24 06 ENGRAULIS EURYSTOLE HEMANTHIAS VIVANUS AUXIS SP. PEFFILUS TRIACANTHUS BOTHUS DOCELLATUS ETPPPUS MICROSTOMUS SYACIUM PAPILLOSUM SYMPHURUS SP. ACOLT IONAL LARVAE CAUCHT	NUMBE F LINGTHS [MM] NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLINC DEPTH 0-15M 6 6 6 6.4 4.6- 9.5 TL 1 1 3.0 SL 6 6 5.4 4.2- 5.8 SL 13 12 2.4 1.5- 3.C SL 3 3 2.9 2.2- 4.2 SL 1 1 4.5 SL 2 1 5.2 SL 1 1 4.7 SL  MURAENICAE EXOCOETICAE SEPRANICAE CARANGICAE LAPRIDAE OF SCAPICAE UNIDENTIFIED	NUMBER LENGTHS [MM] NO. NO. PER ION LARVAE EGGS  1.8 0.3 1.8 3.9 0.9 0.9 0.3 0.6 0.3
N 4 24 C6 CFHICHTHICAE UPHICH THUS GCMESI OFFICHTHUS GCMESI OFFICHTHUS GCMESI OFFICHTHUS GCMESI OFFICHTHUS CHARLES ENGFAULIS EURYSTOLE MYCTOPHIDAE CERTTOSCO PELUS WARMINGI OIA PHUS SP. HYGCPHUM PENDITI OP HYGCMI LAMPANYCTIS ALA TUS OR PHOTONCTIS MYCTOPHUM SP. MYCTOPHUM SP. MYCTOPHUM SFE INE MYCTOPHUM SEL PNOPS ALXIS SP. SARIA SAROA PFPFILUS TRIACANTHUS RCTHUS CELLA TUS CYCLEPSETTA FINBRIATA SYACIUM PAPILIOSUM SYMPHURUS SP. ADOITIONAL LARVAE CAUCHT	33 22 4.5 3.6- 8.7 SL 3 25 23 4.8 2.2-11.2 SL 1 1 3.8 SL 23 20 3.4 2.5- 5.0 SL 1 1 6.0 SL	SAMPLING CEPTH 16-23M  0.3 0.7 0.3 7 7 10.5 5.6-13.8 7t 3.2 3 2 3.4 3.4- 3.4 St 1.0 0.3 3 2 4.0 3.6- 4.3 St 1.0 0.3 3 3 4.E 3.8- 5.5 St 1.3 1 1 10.1 St 0.3 7 6 4.5 3.6- 5.6 St 2.3 1 1 5.E St 0.3 1 1 6.0 St 0.3 1 1 6.0 St 0.3 14 14 4.3 3.5- 5.4 St 14.6 1 0.0 1.2 1 1 3.3 St 0.3 20 19 4.2 2.6- 6.7 St 14.6 1 1 4.5 St 0.3 20 19 4.2 2.6- 6.7 St 14.2 1 1 4.5 St 0.6 19 1E 2.2 2.2- 5.2 St 13.2 8 4 5.6 3.6- 9.2 St 0.6 2.3 OPHICHTHICAE CYCLUTHONE SP. SYNOGONITICAE PARALEPIDIDAE SUDIS SP. LOPHITEO ME S OPHIDIDAE SUDIS SP. LOPHITEO ME S OPHIDIDAE SUDIS SP. LOPHITEO ME S OPHIDIDAE SCARAPIDAE SERRANIDAE APOGONIDAE SCARIDAE LABRIDAE OR SCARIDAE GOBITCAE ACANTHURICAE SCORPAENITAE
A 5 24 06  ALBILA VULPES SARPINELLA ANCHOVIA ENGRAULIS EUR YSTONE CEPATOSCOPELUS MADEFENSIS CEPATOSCOPELUS WARMINGI LIMFANYCTUS ALATHS OP PHOTONOTUS LAMFADENA SP. MYCHOPHUM AFFINE FEMANTHIAS VIVANUS ALXIS SP. BCTHIS OCELLATUS E TREPUS MICROSTOMIS SYACHUM PAPILLOSUM SYMEHIRUS SP. ADDITIONAL LARVAE CAUCHS	1 1 5.8 St 110 108 4.7 3.4- 7.2 St 4 4 7.6 3.6-10.0 St 1 1 4.8 St 4 5.1 3.9- R.O St	SAMPLING DEPTH 18-33M  1 1 6.4 NL 0.3  0.7  3 3 9.1 7.9- 5.8 TL 3.1  0.3  0.7  0.3  0.7  2 2 2 5.5 3.8- 4.0 SL 0.7  3 3 5.0 4.6- 5.4 SL 1.0  1 1 4.6 SL 0.6  55 55 5.8 4.3- 5.7 SL 51.3  13 12 5.2 4.0- 7.6 SL 5.5  1 1 5.1 SL 0.6  25 25 4.2 2.4- 6.0 SL 5.5  4 4 4.1 3.1- 5.9 SL 1.3  MURAENIDAE SYNOCUNTICAE LOPHIFUR WE S  BREGMACERCTICAF CAPPCIDAE SERKANIDAE LABRICAE SCORPAENICAE BALISTIDAE SCORPAENICAE BALISTIDAE TETRAIDUNTICAE UNIDENITEE

TABLE 3. (continued)	70	
CPUISE NATE P66 7 1966 STA. D.M. SPECIES ANALYZED PI 24 06 ANCHDA PERSETUS ANDITIONAL LARVAE CAUCHT	NUMBER LENGTHS (MM) ND. NUMBER LENGTHS (MM) ND. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING CEPTH 0-6M 2 2 11/3 9.7-25.0 TL SCIAENILIZE BLENNILGE TRIGLICAE TRIGLICAE TRIGLICAE TRIGLICAE TRIGLICAE UNIOENTIFIED	ND. PER LOM LAFVÆ EGGS 0.2
P 2 24 06  SARCINELLA ANCHOVIA ANCHOA HEPSETUS ENGRAULIS EURYSTOLE MENTICIPPHUS P. PRICHOTUS CARCLINUS SYMPHURUS SP. ACDITIONAL LARVAS CAUCHT	SAMPLINC CEPTH 0-6M 6 5.5 3.0-8.1 TL 1 1 17.0 TL 96 1 16.8 TL 8 6 2.7 1.9-3.9 SL 9 9 3.3 1.6-4.5 SL 2 2 3.8 3.3-4.2 SL SYNODONTICAE ATHERINICAE SYNONA THIDAE BLENNICITE ELENNICITE SYNONICAE UNIDENTICAE UNIDENTICAE UNIDENTICAE	C.7 0.1 11.6 1.0 1.1
P 3 74 06 ANCIMA HERSETLS PERFITUS TRIAGNEHUS SYMPHURUS SP. ACCITION W. LARVAE CAUGHT	SAMPLING CEPTH 0-6M 2 2 16.7 15.0-18.5 TL 47 45 1.7 1.1- 2.1 SL 1 1 3.1 SL BLENNIICAE COBITOAE PALLSTITAE	0.2 5.7 0.1
	UNIDENTIFIED	
F 4 74 06 FNGCAULTS EURYSTOLF PRICHOTUS CAPOLINUS FIREPUS MICHOSTOMUS SYMPHURUS SR. APDIT INNAL LARVAF CAUCHT	SAMPLING GEPTH C-15M 5 3 8.5 7.5-10.3 TL 7 7 2.1 1.7-2.7 SL 2 2 2.9 2.9-2.5 SL 1 1 2 2.8 2.8-2.8 SL 2 2 2.9 2.5-3.2 SL 1 1 2 2.8 2.8-2.8 SL 1 1 2 2.8 2.8-2.8 SL CAPANGICAE ELENNIII AE PALISTICE UNIDENTIFIED  SAMPLING CEFTH LP-24M  SAMPLING CEFTH LP-24M  SL CPHIOTIOAF BALISTIDAE UNIDENTIFIED	1 .6 2.3 0 .8 t .7
E S 25 06 ENGRAULIS EUPYSTOFE MYCTOPHIDAF CERATOSCOPELUS MADEFENSIS CERATOSCOPELUS MAMMINGI CIAFHUS SP. LAMBANYCTUS SF. LAMBANYCTUS ALATUS CR PHOTONOTUS LAMBANYCTUS ATER ACANTHOCYBIUM SOLANCERI ALXIS SP. KATSUMONIIS RELAMIN RCTHUS OCELLATUS SYACIUM PAPILLOSUM ACOITIONAL LARVAE CAUCHT	VINCIGUEFRIA SP. STOMIATIDAE STOMIATIDAE CARRICAE CARRICAE SERRANICAE POMACENTRICAE MUGILICAE SERRANICAE SERRANICAE SERRANICAE SERRANICAE SERRANICAE SERRANICAE	0.7 2.2 3.4 13.6 5.4 0.7 1.0 0.3 0.7 0.3 1.2 3.1 1.7 2.3
	BALISTICE TETRACCONTIDAE UNIOENTIFIED LABRIDAE OR SCAPIDAE CALLIENY MID AE GEMPYLIDAE SCOPPAEN ITAE TETRACODONTICAE UNIDENTIFIED	

CPUISE DATE  ORAGIO 1966  STA. D M SPECIES ANALYZED  A L CE OA  CEPATOSCOPPELS MADEFENSIS  FNCFELYDRUS CIMBRIUS  UFCOMYCIS CHUSS  MERLUCCIUS BILINEARIS  TAUTOGA ONITIS  TAUTOGA ONITIS  PEPFILUS TRIACANTHUS  PEFICNOTUS CAPCLINUS  HIPPOGLOSSINA OBLENCUS	NUMBER LENGTHS (MM) NO. TOTAL MELS. MEAN RANCE MEAS. FGCS SAMPLING DEPTH C- 6M 1 1 8.2 SL 13 10 3.3 2.1- 4.8 NL 14 13 3.2 2.2- 5.6 NL 1 3 3 4.1 2.6- 5.6 TL 25 25 7.2 4.8-11.4 TL 8 8 4.5 4.0- 7.0 SL 3 2 2.9 2.7- 3.0 SL 12 6 5.4 2.7- 9.0 SL	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN PANGE MEAS. EGGS	NO. PER 10 M LAFVAE EGG S 0.1 0.0 C.1 1.6 1.7 C.1 0.4 3.0 1.0 0.4 1.5
SCOPHTHALMUS ADUINTIS A MOTTION AL LARVAE CAUCHT	6 6 3.5 2.6- 4.3 SL		0.7
A 2 CS OB  UFC PHYCTS CHUSS  MERLUCCTUS BILINEARIS  TAU TOGOLAERUS ADSMERSUS  SCC MER SCOMBFUS  PEPETLUS TRIACANTHUS  HIPFOGLESSINA OBLINCUS  SCOPHTHAT MUS ADUNAL  CLYFTOCEPHALIS CYMPICLESSUS  ADDITIONAL LAFVAE CALCHI			10.0 9.4 1.2 0.3 2.7 2.7 11.8 0.3
A 3 (5 09  CFRATOSCOPELUS MADERENSIS  ENCHELYOPUS CIMBRIUS  UPPRHYCIS CHUSS  MERLUCCIUS BILINEAR IS  TAUTOGA ONITIS  TAUTOGALABRUS ADSPERSUS  SCOMBER SCOMPRUS  PERRUUS TRIACANTHUS  HIFFOGLOSSINA OBLIN (US  SCOPHTHALMUS ADUNUS  LIMANDA FERRUCINEA	SAMPLINC DEPTH 0-15M  1	SAMPLING DEPTH 1E-24M  3 1 2.4 NL 20 20 5.8 2.2- R.6 NL 18  2 2 2.4 2.3- 2.6 SL 14 14 4.4 3.0- 6.7 SL 2 2 7.4 6.1- 8.7 SL	0.3 1.3 2.9 15.8 25.3 0.6 1.6 0.3 0.0 2.5 1.9 10.2 0.6
A CDITIONAL LARVAE CAUCHT  A 4 C5 OB  CERATOSCOPELLS MADEFENSIS  ENCHELYOPUS CIMBRAUS  UPCHYCIS CHUSS  MERLUCCIUS BILINEARIS	SAMPLING DEPTH C-15M 2 2 6.8 6.5- 7.2 SL 1 1 2.8 SL 5 72 12 2.2 1.3- 3.7 NL 217 153 3.1 1.6- 5.7 NL 119	SAMPLING DEFTH 18-33M  11 9 3.0 1.6- 4.3 SL 0 1 1 4.3 54 49 5.1 2.4- 6.9 NL 4	0.7 4.0 1.7 24.0 {3.1 35.7
TAUTIG CLAPRUS ADSPERSUS PEPRILUS TRIACANTHUS HIFFOSLOSSINA DBLIN (US SCEPHTHALMUS ZOUTHUS GLYPTTCFPHALUS CYMDGLOSSUS LIMANDA FERRILCINFA ADOLTIONAL LAPVAE CAUCH	2	7 4 E.4 5.C-1C.6 SL 32 23 7.0 4.6-11.4 St	0 .7 0 .7 4 .3 4 .0 3 .2 10 .7
A 5 C5 OR CERATOSCO FELL'S MADEFENSIS FINCHEL YOPUS CIMBRIUS UPCFHY CIS CHUSS MERILICCIUS BILINEARIS T MITOGOLAPRUS ADSMERSUS SAPTA SAPTA PEPPILUS TRIACANTHUS CITHARICHTHYS APCLIFRONS HIP POSLOSSINA OBLUNCUS CLYFTOCEP FALUS CYMOCLOSSUS ADDITIONAL LARVAE CAUCH	SAMPLINC OFFTH 0-15M  42 41 3.4 1.7-5.7 SL 11  11 11 3.5 1.5-7.5 NL  144 141 5.0 2.7-8.1 NL 6  8 8 6.4 4.5-8.6 TL  3 3 4.4 4.3-4.5 SL 0  14 13 3.6 1.6-8.0 SL  13 13 6.7 6.0-8.6 SL  11 11 5.7 3.9-7.1 SL  8 6 5.1 3.3-6.4 SL	SAMPLING DEPTH 18-33M  1 1 7.0  22 22 3.4 2.1- 4.8 SL 5  28 12 3.7 2.1- 5.2 NL  120 116 6.2 2.1- 8.6 NL 8  9 9 4.7 2.8- 8.5 TL  1 1 2.6 SL 0  23 22 3.0 2.0- 6.5 SL  23 23 6.4 4.5- 8.3 SL  7 7 5.6 4.7- 6.6 SL  10 9 7.8 4.2-15.2 SL	0.3 19.9 5. C 12.6 63.2 4.5 5.4 1.2 0.0 11.9 11.6 5.6 5.7

India 34 (concined)	100		
CPHISE DATE D661C 1966 STA. 7 M. SPECIES ANALYZED A 6. 05 08 CERATUSCUPPLUS MADERENSIS LCPHIUS AMERICANUN ENCHYCIS SP. UPCHYCIS CHURS MERLUCCIUS RITINFAPIS TAUTOGOLARRUS ADSMEFSUS ALMIS SP. SAPRA SAPTA SCHER SCOMPRUS PEPPILUS TITACANTHUS CITHARICHTHYS ARCTIFRONS HIPPOSICSSINA OBLINCUS GLYFTOCEPHALUS CYNOCLOSSUS LIMANDA FERRICTINEA ADDITIONAL LARVAE CAUGHT	NUMEER LENGTHS (MM) ND.  NUMEER LENGTHS (MM) ND.  SAMPLINC DEP TH 0-15M  23 23 6.5 5.1-9.6 SL  5 5 5.2 4.7-5.8 TL  5 5 3.2 2.5-3.8 SL 124  11035 29 2.7 1.5-4.8 NL  144 131 4.0 2.2-6.6 NL  7 7 6.0 4.7-7.7 SL  6 4 3.7 3.0-5.0 SL 17  1 1 3.2 SL  176 71 3.0 2.3-6.8 SL  175 170 4.0 2.4-6.6 SL  CPHICH THIC ZE  DPHIDIIT ZE  STRCMATE IC ZE  UNIDENTIFIED	NUMBER LENGTHS (MM) ND. TDTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEFTH 18-33M 30 30 7.1 5.2-10.1 St 4 4 6.0 4.4-8.0 TL 2 2 3.0 3.0-3.0 St 12  31 29 4.4 2.4-5.8 NL 424 401 5.8 2.0-5.2 NL 1 1 0.2 TL  0 1 1 2.3 288 25 6.6 5.4-8.8 St 15 15 5.0 2.5-8.4 St 25 25 11.0 5.8-18.1 St 13 13 8.0 5.4-12.2 St DPHIDTIDAE STROMATEICAE	NO. PER 10 M LARVAE EGG S 16.9 2.8 2.2 44.7 0.3 345.0 184.5 23.7 1.8 2.3 2.0 5.7 0.3 0.0 18.7 241.8 58.3 8.3 4.3
A 7 CS OR CERATOSCOPPELUS MADEFENSIS CERATOSCOPPELUS WAMMINGI LCPPTUS AMPERICANUS ENCHELYOPUS CIMBRAUS URCEHYCIS SP. URCHYCIS SP. URCHYCIS CHUSS MERLUCCIUS RILINEAPIS ALXIS SP. SAPCA SARCA PEPPILUS TRIACANTHUS RCHUS OCELLATUS CITHARICH THYS ARCITERONS HIEFOGLESSINA OBLONCUS LIMANDA FERRUGINEA ADRITIONAL LARVAE CAUGHT	SAMPLING DEP TH 0-15 M 99 99 6.5 5.4-10.3 SL 1 1 6.2  1 1 6.2  1 1 1 4.1 232 54 2.3 1.2-4.4 NL 7 5 3.6 2.3-4.3 NL 5 622 587 3.6 2.4-5.5 SL 8 8 4 3.4 3.2-3.9 SL 16 16 3.3 1.1-14.9 SL 1 1 11.0 72 25 3.8 2.2-11.6 SL 50 45 3.2 2.4-6.0 SL  CYCLOTHCAE SP. CPHIOTIE IF STREMATETICAE UNIDENTIFIED	S AMPLING CEPT   18-33M 64 64 7.0 6.1-8.9 SL 7 7 5.0 3.9-6.3 TL 3 135 25 2.9 1.9-5.7 NL 40 36 4.2 2.2-1C.1 NL 10 10 10 3.7 2.9-4.6 SL 1 1 3.4 SL 136 25 6.9 4.4-5.7 SL 32 31 4.2 3.1-8.1 SL 1 1 5.4 SL 1 OPHICIIDAE LABRIDAE DR SCAREDAE GCBIICAE STRCMATEICAE UNIDENTIFIED	51.0 0.3 2.3 0.0 0.3 1.4.6 15.4 2.7 5.3 0.3 66.9 25.7 0.3
R 1 (6 0A BREWORTE TYRANNIE ENCHELYOPUS CIMERIUS UROMYCIS CHUSS MERLICCIUS RILINEARIS TAUTOGA ONITIS TAUTOGA ONITIS TAUTOGA ONITIS PEPFILUS TREACANTHIS PEICNOTUS CAROLINUS HIFFOGICSSINA ORLINIUS ADDITIONAL LARVAE CAUCHT	SAMPLING CEPTH 0-15M  1 1 5.6  4 4 3.1 1.7- 5.3 SL 0  13 10 3.4 3.2- 3.7 NL  2 1 2.6 NL 0  41 26 3.8 2.7- 4.9 TL  93 52 4.2 2.3- 8.5 TL  33 30 3.0 1.7- 4.6 SL  9 9 3.3 2.1- 5.0 SL  STROMATEICAE  UNIOENTIFIED		0.3 1.2 0.C 3.9 0.6 0.C 12.4 28.2 10.0 2.7 0.9
R 2 (6 OR LOPFIUS AMERICANIN EKCHELYPUS CIMERAUS UPDHYCIS CHLSS MERLUCCIUS BILINEAR IS TALTOGA ONL IIS TAUTOGOLA BRUS ADSPERSUS SCEMBER SCOMBBUS PEPRILUS TIACAN THUS PRICNOTUS CARCINIS CITHARICH THYS ARCTIFRENS HIPFOGLOSSINA DBLON CUS SCEMTHALMIS ADUNNUS SCENTHALMIS ADUNNUS GLYPTICEPHALLS CYNDGLOSSUS ACOITIONAL LARVAE CAUGHT	UNIDENTIFIED	SAMPLENG DEPTH 16-21M  1 1 6.2  6 6 3.6 2.2-4.8 St 0  20 12 2.8 1.9-4.3 Nt  29 22 3.6 2.1-7.1 Nt 1  4 4 4.3 3.7-5.4 Tt  27 26 4.4 2.2-6.5 Tt  1 1 5.1 St 0  36 36 3.2 2.C-4.3 St  1 7 6 3.5 3.2-4.2 St  5 5 3.8 3.3-4.3 St  1 1 5.7 St O  CPHIDIIDAE STROMATEIDAE UNIDENTIFIEC	0.1 0.6 14.4 5.2 5.3 46.8 0.4 0.0 13.0 4.5 0.1 3.2 1.5 0.1
8 3 (A CR FNC FELYCPUS CIMBPIUS UPOPHYCIS CHUSS MEPLICCIUS BILINEAP IS TAL TOGOLAPRUS ADSME FSUS PEPRILLS TRIACANTHUS HIPFOGLOSSINA OBLINIOUS GLYFTHCEPHALLS CYMOCLOSSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT	SAMPLING DEP TH C-15 M 1 1 2.C SL 2 I I 2.5 NL 2 2 2.C 1.9- 2.2 NL 22 17 14 2.8 2.1- 3.7 TL 1 1 2.0 SL	S AMPLING CEPT F 18-23M  2	0.3 0.7 1.0 3.9 7.2 8.4 0.6 0.7 1.0 2.7

Trond of (continued)			
CRUISE DATE E661C 1966 STA. D M SPECIES ANALYZEC P 4 (6 C8	NUMBER LENGTHS IMMI NC. THIS MEAN PANCE MEAS. EGGS SAMPLING OFFIH CHISM	NUMBER LENGTHS (MM) NO. NO.PET TOTAL MEAS. MEAN FANGE MEAS. EGGS LEFVEE SAMPLING CEPTH 16-23M	R 10 M EGGS
LIPHTUS AMERICANUS	5 5 3.1 2.4- 3.9 St 0	1 1 5.6 TL 0.3 1 1 6.5 St 0 1.8	0.0
FINCHEL YOPUS CIMBRAUS UFCEHY CIS CHUSS	5 5 3.1 2.4- 3.9 SL 0 23 10 3.6 1.9- 6.1 NL	1 1 6.5 SL 0 1.8 1 1 3.7 NL 7.7	0.0
MERLUCCIUS BILINEAR IS	29 25 3.9 1.7- 6.4 NL 4	15 15 5.5 2.9- 5.2 NL 0 13.7	1.3
PCMATOMUS SAL TATPIX TAUTOGA ONITIS	28	2 2 4.C 3.9- 4.1 SL 9.3 0.3	
TAUTOGOLABRUS AOSPERSES	18 18 4.0 2.9- 6.4 TL	2 2 3.6 3.C- 4.3 TL 6.1	
SIRIA SAPCA	20 1E 4.C 3.2- 5.6 SL 6	0 6.7	2. C
PEPRILUS TRIACANTHUS PRICHITUS CARCEINUS	41 38 3.3 1.3- 6.3 SL 3 4.0 3.4- 4.4 SL	11 11 4.6 3.5- 6.3 St 16.0	
CITHARICHTHYS ARCIIFRENS	1 1 5.2 SL	1 1 6.1 SL 0.6	
HIPPOGLOSSINA DRLANGUS SCCEPTHALMUS AQUOSUS	10 10 3.9 2.2-5.4 SL 1 I 2.3 SL	3.3 0.3	
GLYFTOCEPHALUS CYNGGLCSSUS		3 3 5.3 7.7-1C.4 SL 1.0	
L IMANDA FERRUGINEA A ODITIONAL LARVAE CAUCHI	C THE FOUNT 15 LCD	12 12 7.5 6.1- 9.9 St 4.0	
		UNIDENTIFIEG	
P 5 C6 O8 CERATOSCOFELUS MADEFENSIS	SAMPLING DEPTH C-15M	SAMPLING CEPTH 18-33M 5 5 7.4 6.7- 8.5 SL 1.7	
LIFELUS AMERICANUS	1 1 3.5 TL	1 1 6.6 TL 0.6	
FNCHFLYOPLS CIMBRIUS UPOPHYCIS CHUSS	2 2 5.2 3.8- 6.6 St 0 35 17 2.7 1.2- 4.6 NL	26 25 3.8 2.3- 6.5 SL 5 9.3 5 3 3.1 1.2- 4.5 NL 12.2	1.7
MEREUCCIUS BILINFARIS	112 88 4.1 2.0- 5.7 NL 12	85 65 6.2 2.2-13.0 NL 2 61.9	4.3
PEMATOMUS SALTATREX Tautogolaerus aospersus	9 9 3.5 3.0- 4.1 SL 26 24 4.0 2.5- 5.7 TL	3.0 3 2 4.0 3.4- 4.6 TL 8.8	
ALXIS SP.	26	1 1 6.C SL 0.6	
S AR CA S AR OA	61 58 4.0 3.2-6.4 SL 5	0 20.3	1.7
SCCMBER SCCMBRUS PEPRILUS TRIACANTHUS	2 2 2.9 2.7- 3.2 SL 0	69 48 3.0 2.6+ 3.8 SL 0 23.6 11 11 4.3 1.E 7.2 SL 15.4	0.0
CIT FAR ICHTHYS ARCT I FRONS	46 2° 5.° 4.5- 8.1 SL	8 8 6.9 5.7-11.4 SL 16.5	
HIPFOSEDSSINA OBLANCUS GLYFTOCEPHALUS CYNOCLOSSUS	21 20 4.5 2.4- 7.1 SL	2 1 6.3 St 7.0 4 3 12.1 8.9-15.4 St 1.3	
LIMANDA FERRUCINEA		10 9 5.2 7.9-L1.9 St 3.3	
ADDITIONAL LARVAE CAUGH	T PISOOCN CHIS CRUENTIFER	OPHICHTHICAE	
	STPOMATIICAE LNIOENTIFIED	UNIOENTIFIEC	
P 6 (6 0P	SAMPLING DEPTH 0-15M	SAMPLING OFFTH 18-23M	
CEPATOSCOPELUS MADERENSIS	7 7 7.4 6.7- 8.6 SL	6 6 F.C 7.7- F.4 SL 4.1	
L CEFTUS AMERICANUS ENCHELYOPES CIMBRAUS	0	8 8 5.7 4.3- 8.1 TL 2.7 5 5 3.4 2.7- 4.1 SL 0 1.7	0.0
UFCFHYCIS CHUSS	367 42 3.7 1.4- 8.6 NL	29 11 4.2 2.4- 5.1 NL 122.3	
MERLUCCIUS BILINEARIS PEMATOMUS SALTATRIX	98 S6 5.4 2.6-15.1 NL 1 5 5 3.6 3.4-3.8 SL	172 149 6.8 3.0-16.7 NL 0 86.7 1.7	0.3
TAU TOGELARRUS AOSPERSUS	1 1 6.7 TL	0.3	
AUXIS SP. SIRCA SARCA	17 17 4.7 4.0- 7.0 SL 8 8 6.1 5.6- 6.8 SL 0	1 1 4.1 SL 5.7 1 1 5.0 SL 0 2.7	0.0
PEPRILUS TRIACANTHUS	8 8 6.1 5.6- 6.8 SL 0 207 59 3.3 1.2-17.6 St	1 1 5.0 St 0 2.7 10 10 5.0 2.2-13.5 St 69.0	0.0
CITEAR ICHTHYS ARCFIFRONS	42 25 5.9 4.1- 7.1 SL	2 1 9.9 SL 14.0	
HIPFOGECSSINA DBEANCUS GEYFTDCEPHALES CYNDCEOSSUS	71 50 4.4 3.1- 6.3 SL	5 5 4.5 3.7-6.3 SL 23.7 3 2 12.9 11.6-15.4 SL 1.0	
LIMANDA FERRUCINEA		5 5 9.4 7.8-10.6 SL 1.7	
A ODITIONAL LARVAE CAUGH	CYCLOTHONE SP.	UNIDENTIFIED	
	OPHIGITCAE		
	UNIDENTIFIED		
P 7 C5 OB PISCOPNOPHIS CRUENTIFER	SAMPLING DEPTH C-15M 2 2 38.2 22.5-44.0 TL	SAMPLING CEPTH 18-33M	
CERATOSCOPELLS MADERENSIS	15 15 7.9 6.3- 9.8 SL	19 19 8.C 6.2- 9.4 SL 10.8	
LIPPIUS AMERICANUS UPCPHYCIS CHUSS	227 20 3.6 1.4-15.5 NL	25	
MERLUCCIUS ATLINEAR IS	163 162 6.6 3.2-15.3 NL 0	726 701 8.5 3.5-25.9 NL 0 290.9	0 • C
ALXIS SP. PIPRILUS TRIACANTHUS	3	1.0 C.7	
CITEARICHTHYS ARCTIFRGNS	39 25 6.9 4.2-12.1 SL	21 21 7.0 2.6-L1.0 St 18.7	
HIRPOSLOS SINA DBLUNCUS CLY FTOGERHALUS CYNOCLOSSUS	7 6 5.2 3.5- 6.7 SL	2.3 6 6 14.9 6.7-24.5 SL 2.0	
LIMANDA FERRIGINEA		10 10 10.5 8.2-14.6 SL 3.6	
ADDITIONAL LARVAE CAUGH	1 1 15.4 SL		
	T ANGUILLIFORMES	CYCLCTHONE SP.	
	T ANGUILLIFORMES  OPHICHTFIDAE  LOPHIIFCEMES	CYCLOTHONE SP.	
	T ANGUILLIFORMES  OPHICHTHIDAE  LOPHIIFCEMES  OPHIOTICAE	CYCLCTHONE SP.	
	T ANGUILLIFORMES OPHICHTHIDAE LOPHIIFCIMES OPHIOTICAE CALLICNYMICAE STROMATFICIE	CYCLCTHONE SP.	
	T ANGUILLIFORMES  (IPHICHTHIDAE  LOPHIIFCIMES  (IPHIOIIGAE  CALLICNYMICAE	CYCLCTHONE SP.	

TABLE 3. (Continued)		102		
CRUISS DATE DAGIO 1966 STA. D. M. SPECIES ANALYZED C. 1. C6. OB AREVOORTIA TYRANNIS ENGRAULIS EURYSTOLE LOPHUS AMERICANUS ENCHELYDRUS CIMBRAUS UPOPHYCIS CHUSS MERIUCCIUS RILINEARIS PENATOMUS SALTATRIX TAUTIGOLARPUS AD SPERSUS PEFFILUS TRIACANTHUS PRICHOTUS CARCLINIS HIPPOGLOSSINA DELIN CUS SCOTHTHALMUS ADDOSUS ADDITIONAL LARVAE CAUGHT	SAMPLINC DEPTH D-6M 3 3 8.6 8.1-9.1 T 223 29 5.2 2.8-6.5 T 1 1 3.4 2 2 3.7 3.2-4.1 S 19 16 1.6 1.3-2.0 N 2 2 2.1 1.8-2.4 N 2 2 6.9 3.0-10.8 S 71 65 3.4 2.1-7.4 T 11 10 2.8 1.9-3.2 S 2 2 4.3 3.9-4.7 S 6 6 3.6 2.2-7.8 S 5 5 3.8 3.1-4.2 S	NO. AS. EGGS  L L L L L L L L L L L L L L L L L L	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN FANGE MEAS. EGGS	NO. PER 10 P LAPVAE EGGS 0.4 27.0 0.1 0.2 2.3 0.2 0.2 0.0 0.2 8.6 1.3 0.2 0.7 0.6
C 2 (7 OR  BREWORN TIA TYPANNIIS  FACEAULIS EURYSTOLF  LCPHIUS AMEPICANUN  EACHELYOPUS CIMBRIUS  MERLUCCIUS BILINFARIS  MENTIC TRRHUS P.  TAUTOGCLABRUS ADSPERSUS  PERRILUS TRIACANTHUS  S COFFT HALMUS ADDITIONAL LAPVAE CAUGHT	45 45 4.1 2.3- 8.9 T 12 12 2.7 1.4- 3.5 S 9 8 4.7 2.7- 7.2 S	l l 0 l l l		0.3 125.1 0.3 13.3 0.0 0.0 0.3 0.3 13.6 3.6 2.7
C 3 C7 OB  BRE WORR TIA TYPANNIS  FICEAULIS EURYSTOLE  FACHELYOPES CIMARIUS  UPOFHYCIS CHUSS  MERLUCCIUS BILINEARIS  PCMATDMUS SAL TATRIX  TAUTOGOLA PRUS ADS PFFSUS  PEPRILUS TRIACANTHUS  ETPEPJS MICROSTOPHIS  HIFFCGLESSINA DBIONCUS  SCOPHTHALMUS AQUISCUS  LIMANDA FERRUCINEA  ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 2 2 9.8 9.3-10.3 T 18 15 6.2 5.1- 7.2 T 10 9 4.3 2.5- 7.7 S 2 2 1.4 1.4- 1.5 N 9 9 3.2 2.6- 5.5 N 14 14 3.9 3.4- 5.1 S 21 21 4.3 3.1- 8.3 T 6 6 3.8 2.3- 7.0 S 2 2 9.7 7.7-11.7 S 9 9 5.8 2.4- 9.2 S 3 3 21.5 2.4-35.0 S UNIDENTIFIEED	1. 0 1. 0 1. 0 1. 0 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	SAMPLING DEPTH 18-24M  5 5 3.3 2.2- 4.3 SL 0  0  2 2 5.4 4.2- 7.5 SL  4 4 8.2 3.9-12.0 SL	0.6 5.8 3.9 0.6 2.9 0.0 4.5 6.8 1.9 0.6 3.1 1.0
C 4 C7 OB ENGRAULIS EUR YSTOLE ENCHELY OPUS CIMBRIUS MERLUCCTUS BILINEAR IS PLEM TOMUS SALTATELY TAUTOGOLA BRUS AOSPEFSUS SARCA SAPOA PEFFILUS TRIACANTHUS CITHAR ICH THYS ARC TIFRONS ETFOPUS MICROSTOMUS HIPPOGLOSSINA OBLUNGUS LIMANDA FERRUCINFA A ODITIONAL LAFVAE CAUGHT	SAMPLINC DEPTH 0-15M 11 6 4.3 3.0-6.3 T 5 5 4.2 2.6-5.9 S 41 29 3.7 1.7-6.3 N 4 4 2.4 2.4-2.5 S 32 30 3.5 2.3-10.2 T  12 11 3.6 1.7-7.5 S 5 5 3.2 1.7-8.0 S 1 1 4.7 S 19 16 3.2 2.1-6.7 S UNIDENTIFIED	L G L 4 L L 2 L L	SAMPLING DEPTH 16-33M  1 1 4.7 NL 0  1 1 5.C TL  D	3.7 1.7 0.0 13.7 1.3 10.7 0.0 C.7 4.0 1.7 0.3 6.3 0.7
C 5 (7 08 UPD PHYCIS CHLSS MERLUCCIUS BILINEARIS TAL TOGOLA ERUS A DS ME FSUS PEPPIL US TRIACANTHUS PET (NOTUS CARTLINIS HIPFOSLOSSINA DBLONCUS LIMBNOA FERRUCINEA A COLTIONAL LARVAE CAUGHT		2 L l	SAMPLING OFFITH 16-33M  3	0.3 1.0 0.7 3.1 0.3 0.7 1.0
C 6 C7 79  ENGRAULIS EURYSTOLE  ENCHELYOPUS C.M BRIUS  URTHYCIS CHLSS  MERLINCTUS RILINEARIS  FEMATOMUS SALTATRIX  TAUTOGOLA BRUS AD SPERSUS  SARIA SARIA  PEPFILUS TRIAGANTHUS  CITHAPICHTHYS ARCTIFRONS  HIPPOSCOSSINA TRUMBUS  LIMANDA FERRUCINEA  ADDITIONAL LARVAE CAUCHT	SAMPLINC DEPTH 0-15M  14 12 3.6 1.5-16.1 N  1 1 3.2 N  1 1 3.0 S  7 7 3.5 3.1-4.0 T  1 1 3.6 S  4 4 2.0 1.5-2.8 S  1 1 2.5 SS  7 5 3.2 2.8-3.4 S	և 19 ե և 5 և 5	SAMPLING DEPTH 18-33 M 1 7. c TL 2 2 3.7 3.4-3.9 St 0 1 1 7.2 TL 0	0.3 0.7 0.6 4.7 0.3 0.3 2.4 0.3 1.7 1.3 0.3 2.3 0.3

CRUISE DATE  D6610 1966  STA. D.M. SPECIES ANALYZED  C.7. C7. 08  LCFHIUS AMERICANUN  FNCHEL YOPLS CIMBRIUS  UFDIFINCIS CHUSS  MEPLUSCIUS BILLINEAR IS  P. (MATOMUS SALTATRIX  TALTOCCLARRUS ADSMERSUS  ALYIS SP.  SIRCA SAPCA  PEPPILUS TRIACANTHUS  CITHARICHTHYS ARCIIFRONS  HIFFOGLOSSINA OBLONCUS  GLYPTICEPHALLS CYNOGLOSSUS  ADDITIONAL LIRVAE CAUGHT	NUMBER LENGTHS 1MM) NO.  TOTAL MEAS. MEAN RANCE MEAS. EGCS SAMPLING DEPTH 0-15 M  1 1 5.9 TL  39 13 4.6 1.5- 7.0 NL  4 3 4.7 3.1- 7.5 SL  2 2 6.2 6.1- 6.4 TL  1 1 9.2 SL  9 9 6.C 4.7- 8.1 SL  1 80 80 4.2 2.5- 9.5 SL  41 25 5.5 3.7- 8.7 SL  7 7 4.7 2.5- 7.5 SL  OPHICHTPIDAE CYCLOTHENE SP. OPHIDII CAE	NUMBER LENCTHS [MM] NO. NO. PER TOTAL NEAS. MEAN RANGE MEAS. EGGS LAFVE SAMPLING CEPTH 18-33M  1 1 3.5 TL 0.6 15 15 2.2 2.0- 4.2 SL 0 5.0 102 14 3.9 2.6- 5.6 NL 45.7 7 6 5.2 4.5- 6.6 NL 0 2.3 3 3 3.0 2.9- 3.1 SL 2.2  1 1 E.£ SL 0.6 17 17 5.6 4.3- 8.8 SL 0 8.4 24 24 4.7 2.6- 6.6 SL 32.0 14 14 6.3 5.0- 7.6 SL 17.0 13 12 3.9 3.0- 5.8 SL 6.4 6 5 1C.2 8.3-12.7 SL 2.0  OPHICHTHICAE OPHIDIIOAE STRCMATEICAE	2 10M ECGS 0.3 0.0
C 8 C7 09  LCPPIUS AMERICANUS ENCHEL YOP LS CIMBRIUS UFORHYCIS CHUSS MEPLUCCIUS BILINEARIS POMATOMUS SALTATRIX SARCA SARCA PEPPILUS TRIACANTHUS CITHARICHTHYS ARCTITRONS HIPFOGLISSINA OBLONCUS GLYFTOCFPHALUS CYNOCLOSSUS ACOITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15 M 1 1 5.0 TL  25 25 4.5 1.2- 7.5 NL  1 1 4.9 NL 0  4 4 3.6 3.4- 3.8 SL  2 2 6.0 4.1- 7.5 SL  43 43 5.1 3.1- 8.5 SL  143 25 6.1 5.0- 8.2 SL  5 5 4.8 3.8- 5.8 SL	SAMPLING CEPTH 18-33M  12 12 6.4 3.4-11.9 TL 4.3  27 26 3.3 2.1- 4.4 SL 0 9.0  56 11 4.5 2.2- 9.3 NL 26.2  87 73 5.4 3.3- 7.3 NL 0 29.3  1 1 1 C.8 SL 0 0.9  11 11 4.4 3.2- 5.7 SL 16.6  22 22 6.8 5.1-11.2 SL 50.2  3 3 5.5 3.6- < C SL 2.5  4 4 12.9 5.3-25.9 SL 1.3	0.0
D 2 (E CB ENGRAULIS FUR YSTOLE ACOLTIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-6M 15 9 3.7 1.9-7.0 TL 4 2 6.7 6.0-7.4 TL SAMPLING DEPTH 0-6M 15 15 5.1 3.7-7.0 TL UNIDENTIFIED	1.8 0.5	
D 3 C8 D8 PCMATDMUS SALIATRIY PEPPILUS TRIACANTHUS ETROPUS MICROSTOMUS HIPPOGLOSSINA DBLUNGUS ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 1 1 2.9 St 5 5 1.8 1.4- 2.2 St 1 1 2.5 St 5 5 3.1 2.2-4.3 St	0.3 1.5 0.3 1.5	
C 4 C8 O8 ENGRAULIS EURYSTOLE UFOTHYCIS CHUSS PENATOMUS SALTATRIX SARIA SARIA PERFILUS TRIACANTHUS CITHARICHTHYS ARCTIFECNS HIPPOGLOSSINA OBLUNCUS ACOITIONAL LARVAE CAUCHT		0.2 0.1 4.4 0.0 0.6 0.1	C. 4
C 5 (8 08  RPE VOOR TIA TY FANNUS ANCHOA HE PSETUS LCPHIUS AMERICANUS ENCHELYDEUS CHMRHUS UPCFHYCIS CHUSS MEPLUCCIUS SILINFAPIS PCMATOMUS SILINFAPIS TAU TOGOLARRUS AOSPEFSUS ALXIS SP. SARIA SAPDA PEPRILUS TRIACANTHUS PFICNOTUS CAROLINHS PFICNOTUS EVOLANS CITHARICHTHYS ARCITERONS ETREPUS MICPOSTOMUS HIPPOGLOSSINA DBUNCUS GLY FFOCEPHALUS CYMOLLOSSUS LIMANDA FERRUGINAA AODITIONAL LARVAE CAUGHT	SAMPLINC DEP TH 0-15M  1 1 10.6  1 2 7.7 4.8-11.2 TL  1 1 4.0  77 23 3.1 1.3- 4.8 NL  4 4 3.7 2.4- 7.1 NL  549 546 3.5 2.5- 5.1 SL  7 6 6.7 5.1- 8.5 TL  2C6 164 3.1 2.0- 4.7 SL  48 44 3.4 2.8- 4.4 SL  137 50 3.2 1.5- 7.5 SL  1 1 4.7  6 6 5.1 4.6- 5.4 SL  76 25 2.7 1.9- 7.6 SL  19 19 3.4 2.1- 5.6 SL  331 50 3.8 2.4- 5.2 SL	SAMPLING CEPTH 18-24M  3.9  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  3.9  0.3  1.1  1.2  NL  0  1.4  1.7  9.9  6.7  7.7-10.0  1.4  2.2  2.2  2.9  2.8-3.1  5.1  6.6  5.3  4.0  3.5-4.9  5.1  2.15.5  14.14  6.0  2.0-5.0  1.9  4.4  7.1  6.0-7.7  5L  24.6  6.1  138.50  6.1  1.38.20  5L  20  19  1.1  28.2  5L  0.2  5TROMATEICAE	C. C 1.9

TABLE 3. (continued)	104	
CPUISE DATE DE610 1966 STA. D.M. SPECIES ANALYZED D.6. CE CR. ENCRAULIS EURYSTOLE LCPHIUS AMERICANUN UROPHYCIS CHUSS MERIUCCIUS RILINEAP IS PCMATDMLS SALIATRIX TAUTOGOLA EPUS ADSPERSUS ALXIS SP. SARIA SAPDA PEPRILIS TRIACANTHUS PRICMOTUS CAPCLINIS PRICMOTUS CAPCLINIS CITHARICH THYS ARCTIFPCNS HIPPOGLOS SINA ORLIN CUS GLYFTOCEPHALLS CYNCCLCSSUS L MANCA FERRUINEA ADDITIONAL LAPVAE CAUCHT	**************************************	
C 7 O7 O8  LCPHIUS AMERICANUN ENCHELYOPUS CIMBRAUS UFCCHYCIS CHUSS MERIUCCIUS BILINEARIS FCMATOMUS SALTATRIX TAUTOGOLABRUS ADSPERSUS SARIA SAPOA PEPFILUS TRIACANTHUS CITHARICHTHYS ARGITEPENS ETROPUS MICPOSTOMUS HIPPOGLOSSINA ORLUNICUS GLYFTOCEPHALUS CYNNOLOSSUS LIMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHY	SAMPLING DEP TH	1.7 0 0.3 C.C 24.7 0 8.3 0.0 28.0 8.7 0 1.5 0.0 7.6 0.6 2.1 0.3 11.5
E 8 (7 08 PISCONORPHIS ŒUENTIFER MYCIOPHIDAE CERATOSCO PELUS MADERENSIS LIPHIUS AMERICANUS ENCHELYPOLS IMBRIUS UFCIFYCIS CHUSS MERIUCIUS RILINEARIS TAUTOGOLAPRUS ADSPERSUS AUXIS SP. SZPIA SAPCA PEPPILUS TRIACANTHUS CITHAPICH THYS ARCTIFERONS MINCLENE SESS ILICAUIA HIPEOGLOSSINA DBLONCLS SICEPHIHALMUS ADUDAUS GIYFTOCEPHALUS CYADGLOSSUS LIMANDA ERRUCINEA ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M 1 27.2 TL 2 2 15.5 14.9-16.1 SL 1 1 13.5 TL 4 4 4 6.7 5.6-8.4 TL 0 1 1 4.2 SL 106 16 3.8 1.6-6.1 NL 1 1 11.1 TL 51 45 4.6 2.6-8.4 SL 12 2 6.2 6.1-6.3 SL 14 14 6.9 3.5-8.8 SL 14 14 6.9 3.5-8.8 SL 15 15 5.2 2.7-9.3 SL 115 25 5.2 2.7-9.3 SL 11 11.8 SL 40 38 5.2 2.5-7.7 SL 3 3 2.7 2.6-2.7 SL  DPHICHTHICAE PISODON(SHIS CRUENTIFER OPHIDIIDAE UNIDENTIFIED  SAMPLING DEPTH 16-33M  1 1 5.5 SL 4 6.7 5.6-8.4 TL 7 5 4.3 3.7-4.9 NL 6 6 6 1 10.2 6.0-15.5 NL 1 1 1.1 1 1 1	0 .3 0 .7 1 .6 0 0 .3 C. ( 35 .3 0 21 .6 0 .0 0 .3 17 .0 0 4 .7 C. ( 11 .8 1 28 .8 0 .3 15 .0 1 .0 7 .0 5 .7
F 2 (P 09	SAMPLINC DEPTH C- 6M	0.2
FNGRAUL IS EUR YSTOFE FCMATOMUS SALTATPIX	2	0.2 0.1
PEPPILUS TRIACANTHUS	1 1 4.7 SL	0.1
F 4 (9 09 FNCRAINLIS EUP YSTOLF PEFFILUS TRIACANTHUS	SAMPLING CEPTH C- 6M 12 11 7.0 5.6-8.4 TL 29 29 3.4 1.0- 6.6 SL	1.5

CRUISE DATE 16610 1966 STA. D.M. SPECIES ANALYZED E.S. (S. C.9. ENCPAULIS EUPYSTOFE PENATOMUS SALTATRIX AUXIS SP. PEPFILUS TPIA (ANTHUS PRIONITUS EVOLANS CITHARICHTHYS ARCITERONS ETROPUS MICPOSTOMUS HIFFOGLOSSINA DR. IN CUS ACOLTIONAL LARVAF CAUCHT	NUMBER LARVAE ************************************	NUMBER LENGTHS [MM] NO. TCTAL MEAS. MEAN PANGE MEAS. EGGS SAMPLING DEPTH 1E-24M  8 8 5.8 3.7- 7.0 TL  11 11 4.C 3.6- 4.8 SL  28 2E 4.7 2.6- 8.0 SL  15 15 6.8 3.3- 9.1 SL  10 10 7.1 4.6-1C.3 SL  21 20 5.2 4.2- 6.7 SL  STR DMATE I DAE	ND. PER 10M LAFVAE EGGS 1.9 31.0 0.6 6.1 0.3 2.7 1.6 3.4
E A C9 OB  FNGRANDLIS EUR YSTOLE LIFFIJS AMERICANUS UPP PHYCIS CHUSS MER LUCCIUS RILLINE AR IS PIMATOMUS SALITATRIX TAUTOGOLABRUS ADSPERSUS ALXIS SP. SARCA SAPOA PIPFILIUS TRIACANTHUS CITHARICH THYS ARCHIFRONS FIRCPUS MICROSTOMUS HIFFOGLOSSINA DBLOM CUS GLYFTOCEPHALUS CYMCCLOSSUS LIMANDA FERRUCINEA ACDITIONAL LARVAE CAUCHT	SAMPLINC DEPTH 0-15M  2 2 4.8 4.3-5.3 TL  17 17 4.3 2.3-9.0 NL  1 1 5.3 NL  59 59 4.3 2.9-7.2 SL  3 3 5.7 5.4-6.0 TL  20 20 4.4 3.4-5.2 SL  1 1 7.0 SL  8 9 5.4 2.7-7.0 SL  38 27 5.1 3.2-7.7 SL  1  13 12 4.3 2.8-6.1 SL  CPHIDIILAE  UNIDENTIFIED	SAMPLING DEPTH 18-33M  3  2  7.7  4.7-10.7 TL  1  1  5.7  21  5  4.6  2.9- 6.7 NL  3  3  6.0  5.8- 6.2 NL  12  12  5.5  4.0- E.7 SL  4  4  7.1  6.0- E.2 TL   0  5  5  7.3  6.8- 8.0 SL  163  25  4.5  3.2- 7.9 SL  2  2  6.4  5.4- 5.4 SL  30  27  5.0  3.5- 8.5 SL  1  1  15.4  5L  5  5  8.1  6.5-10.0 SL  OPHIDIIDAE	1.0 0.9 12.1 1.3 c.c 21.7 2.2 6.7 0.3 4.1 65.7 1.0 13.9 0.3 1.7
E 7 (9 CR UFDFM CIS CHUSS MERLUCCIUS BILLINEARIS DOMATIMUS SALTATREX ALXIS SP. SPPCA SARDA PEPPILUS TRIACANTHUS CITMARICH THYS ARCITERONS HIFFOGLOSSINA DBLANGUS GLYFTOF PHALUS CYMPCLOSSUS AODIT TONAL LARVAE CAUGH	SAMPLING DEPTH D-15M  13 1C 3.9 2.9- 8.C NL 2 2 3.3 2.9- 3.7 NL 209 2C9 3.8 2.7- 5.4 SL 10 9 3.5 2.7- 4.5 SL 1 1 3.3 SL 10 1C 5.2 3.5- 6.5 SL 23 21 3.8 2.4- 5.5 SL 20 2C 3.4 2.6- 4.5 SL	SAMPLING DEPTH 1E-23M 4 4 3.5 2.7- 5.3 NL 5 5 5 5.5 4.2- 7.2 NL 21 21 3.9 2.9- 5.5 SL 3 3 4.0 3.8- 4.3 SL 1 1 2.5 SL 6 6 6 6.1 5.6- 7.2 SL 32 32 5.0 2.9- 6.7 SL 25 23 5.0 2.9- 6.7 SL OPHICII DAE	5.2 2.3 0.0 (5.7 4.0 0.6 0.0 5.0 17.9 14.3 1.0
E 8 (9 CA LCPHIS AMERICANUS UEDPHYCIS CHUSS AUXIS SP. SZRCA SARCA PEPRILUS TRIACANTHUS CIT HARICHTHYS ARCITERONS HIPPOSLOSSINA OBLONCUS ADDITIONAL LARVAE CAUGH	SAMPLING CEPTH 0-15M  23	SAMPLING OEPTH 1E-23M  1 1 14.3  4 3 5.2 3.0-6.7 NL  2 2 5.3 4.1-6.5 SL  1 1 10.2 SL 0  8 8 12.6 7.4-24.7 SL  5 5 4.8 3.9-6.6 SL  6 6 4.2 3.0-7.6 SL  CPHICHTHICAE MYCTOPHIDAE UNIDENT IF IE 0	0.3 8.2 27.0 0.9 3.6 16.4
F 1 10 CP ANGHDA MITCHILLI ACDITIONAL LARVAE CAUGHT	SAMPLING CEPTH 0-6M 29 29 3.8 2.0-13.3 TL SYNGNATHICAE		3.5
F 2 10 08 ANCHOR MITCHILLI PEPFILUS TRIACANTHUS HIPFOGLOSSINA DBLONCUS ADDITIONAL LARVAE CAUCH			1 . 3 0 . 1 0 . 1
F 3 10 OR PEPPLUS RIACANTHUS HIPFCGLCSSINA OBLANUS ADDITIONAL LARVAE CAUCHS			0.3
F 4 IN OR FNGRAULTS FUR YSTOLF TALTOGELA PPUS ADSPERSUS PEPRILUS TRIACANTHLS PEICNOTUS CAPO INUS HIPPOGLOSSINA DBLUNCUS	SAMPLING CEPTH 0-15M 4 2 7.0 3.5-10.5 Tt 1 1 2.7 Tt 9 9 10.0 1.8-16.4 St 3 3 2.3 2.0- 2.8 St 2 2 4.1 2.3- 5.8 St		1.2 0.3 2.7 0.9 0.6

TABLE 3. (continued)	106	
CPUISE DATE  C6610 1966  STA. D.M. SPECIES ANALYZED  F. C.	NUMBER LENGTHS IMM) NO. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M  14 12 7.8 4.0-10.3 TL 4 3 5.7 3.7-7.3 NL 3 3 3.6 2.8-4.5 SL 37 37 4.3 2.4-5.5 SL 2 2 4.1 2.8-5.5 SL 2 2 4.1 2.8-5.5 SL 2 2 2 4.2 4.7-5.0 SL 3 3 3.7-7.3 SL 3 3 3.7-7.3 NL 5 SL 5 S	**************************************
F 6 C9 OR ENGRAULIS FUR YSTDLE HECEHYCIS CHUSS MERLUCCIUS BILINEARIS PCHATCMUS SALTATPIX TALTINGOLA PPUS AOSPESUS AUXIS SP. PEPPILUS TRIACANTHUS CITHARICH THYS ARTHIFRONS ETFCPUS MICPOSTOMIAS HIPPOSICS TINA TBLUNGUS GIYPTOFPHALUS CYNOGLOSSUS LIMANDA FEPPUCINEA ADDITIONAL LARVAE CAUGHT	SAMPLINC DEPTH 0-15M 112 29 6.4 2.4-10.5 TL 21 17 3.8 2.6- 7.0 NL 1 1 6.0 NL 0 240 223 4.9 3.6- 8.1 SL 7 7 5.4 4.2- 7.2 TL 28 28 4.9 3.7- 6.4 SL 225 53 3.6 1.9- 7.1 SL 28 27 4.6 2.4-11.1 SL 1 1 8.7 SL 14 13 4.0 3.4- 5.2 SL	SAMPLING OEPTH 18-33M  11 11 9.3 7.7-12.8 TL 27.3  2 2 4.1 3.1-5.2 NL 7.0  2 2 7.C 6.5-7.2 NL 0 1.0 0.0  16 16 4.7 3.0-8.0 SL 80.0  1 1 6.4 16 4.7 3.0-8.0 SL 9.4  3 3 4.8 3.9-5.4 SL 9.4  5 3 3.5 2.9-4.0 SL 75.0  6 6 4.6 3.1-6.4 SL 10.4  0.3  1 1 5.6 SL 4.7  1 1 17.9 SL 0.3  1 1 13.3 SL 0.3
F 7 (9 09 PISCONNOPHIS CPUENTIFEP LCPHIUS AMERICANUN UPPOPPYCIS CHLISS MERIUCCIUS PILINFARIS PCMATOMUS SALIATRAY T RUTOGOLA BRUS AOSMERSUS ALXIS SP. SARCA SARDA PERPILUS TRIACANTHUS CITHARICH THYS ARCITERONS HIPFOGLOSSINA DBUNCUS GLYPTOCEPHALUS CYNDCLCSSUS LIMANDA FERRUGINEA A POITIONAL LARVAE CAUCHT	SAMPLINC CEPTH 0-15M  1 1 26.3 TL  1 1 12.1 TL  18 17 4.8 1.6-14.1 NL  7 7 7.5 5.5-10.1 NL  0 11 11 6.1 4.0-9.3 SL  5 4 8.3 6.2-10.0 TL  105 57 3.9 2.5-8.5 SL  2 2 8.8 8.7-9.0 SL  0 2 2 8.8 8.7-9.0 SL  72 70 2.9 1.8-4.5 SL  271 25 4.8 2.9-9.6 SL  26 26 4.4 2.2-7.7 SL  5 4 13.2 10.8-14.4 SL  OPHICHTHICAE  CPHIDILLE  STROMATEIDAE	SAMPLING DEPTH 16-33M  2 2 7.3 6.6- 6.1 NL 6.1  1 1 4.4 SL 3.7  1.7  3 3 3.5 3.3- 4.5 SL 0 0.7 C.C  3 3 3 3.6 3.2- 4.3 SL 24.0  4 4 5.1 2.2- 7.2 SL 50.3  2 2 3.2 2.8- 3.5 SL 8.7  4 4 2C.7 9.2-26.1 SL 1.3  6 6 1C.5 9.0-12.7 SL 3.5  OPHICHTHIDAE  UNIDENTIFIEC
C 1 21 08	SAMPLING DEPTH C-6M	
C 2 21 C8 FRGFAULIS EURYSTOLE ADDITIONAL LARVAE CALEFT	SAMPLING DEPTH C-6M 9 6 2.8 2.1-4.2 TL UNIDENTIFIED	1.1
G 3 21 OR PEPRILUS TRIACANTHUS	SAMPLING CEPTH 0-15M	SAMPLING DEPTH 18-24M 1 1 1€.2 SL 0.2
G 4 21 CR ENGRAULIS EURYSTILE LEPHIUS AMERICANUS IPPOPHYCIS CHUSS CENTROPPISTIS STREATA ALXIS SP. PEFFILUS TPIACANTHUS PRICHOTUS CARCLINUS CITEAPICHTHYS ARCTIFFONS FIECUS MICROSTOMUS HIPPOGLOSSIMA ORLUNGUS LIMANDA FERRUCINEA SYMPHURUS SP. ACOIT DINAL LAPVAE CAUGHT	SAMPLING OEPTH 0-15M  88	28.4   0.3   1   1   4.5   NL   4.5   5.5   0.3   1   1   3.0   5L   17.1   5   5   4.9   3.3 - 5.9   5L   58.2   107   25   8.6   6.3 - 11.5   5L   22.8   1   1   1   10.3   5L   7   7   7.0   4.6 - 8.5   5L   3.6   0.3   1.0   CPHICIIOA 6

TABLE 3. (continued)	107		
COUTSE DATE 16610 1966 STA. D.M. SPECIES ANALYZED C.5. 21.08 ENGRAULIS EURRSTOLE	NUMBER LENGTHS LMM) NC. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH C-15 M 140 48 5.5 2.6- 8.5 TL	NUMBER LENGTHS [MM] ND. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING CEPTH 18-33M	2 NO . PER 10M L#FV#E EGGS 46 .7 0 .6
UPDAYCLS CHUSS  MEPUNCEUS BILINFAPIS  CENTROPRISTIS STRIATA  CYNCSCION SP.  VENTICIPPHUS SP.  PEOPILUS TRIACANTAUS	1	2 2 4.7 3.0- 6.5 SL	0.3 0.C 2.3 0.7 1.7 22.7
PRICHOTUS CARCLINUS PRICHOTUS EVELANS CITHARICHTHYS ARCIIFRONS FIREPUS MICRESTOMUS HIPPOSLOSSINA ORLUNGUS GLYFTOCEPHALUS CYMOLLOSSUS	188 24 4.3 2.7-5.7 \$L 4 4 5.5 4.8-6.3 \$L 86 25 6.7 4.3-8.7 \$L 39 39 5.7 2.3-9.2 \$L	85	62.7 1.3 54.1 13.0 0.3 0.7
LIMANDA FFORUCINEA SYMPHURUS SP. ANDIT INNAL LAGVAF CAUCHT	2 2 5.8 5.5- 6.0 St OPHIDIICAE	2 2 13.1 12.1-14.1 SL OPHIDIIDAE	0.7
C 6 - 21 - 0.8 FING RAULIS EUR YSTOLE LCPHIUS AMERICANUS	SAMPLING DEP TH C-15M 4 4 12.9 5.6-20.1 TL	SAMPLING CEFTH 10-33M 5 5 2C.1 19.5-21.2 TL 1 1 6.4 TL	2.9
DECEMPCIS CHUSS AUXIS SP. PERPILUS TRIACANTHUS	64 19 4.4 1.7-10.8 Nt 3 3 9.9 5.6-12.2 St 16 13 5.2 2.6- 7.2 St	28 10 3.5 2.5- 4.1 NL 6 6 5.3 3.5- 8.3 St	28 .5 1.0 6.8
PPICNOTUS CARCLINUS CITEARICHTHYS ARCTIFPONS EIRCRUS MICROSTOMUS HIPPOGLOSSINA IBLUNCUS	2 2 5.3 3.9-6.8 St 70 25 5.6 3.6-5.7 St 1 1 5.6 St 17 17 5.5 3.1-8.8 St	21	0.7 28.0 0.3 6.8
ACDIT IONAL LERVAE CAUCHT		OPHI DII DA E	
H 1 22 08 FRERAULIS EURYSTOLF	SAMPLINC CEPTH 0- 3M 7 2 6.6 6.6- 6.7 TL		0.4
ETREPUS MECROSTOMUS SYMPHURUS SP. ACDIT MONAF LARVAE CAUGHT	4 2 6.2 5.0- 7.3 SL I 1 4.4 SL UNIDENTIFIED		0 .2 0 . l
F 2 22 0.8  FNGFAULTS EURYSTOLE  PPTONOTUS CAPOLINUS	SAMPLING REPTH C-15M 3 3 9.0 5.8-13.1 TL 15 15 2.6 1.5-4.2 SL		0.9 4.5
SCCFHTHALMUS JOURSUS SYMPHURUS SP. ACDIT TONAL LARVAF CAUGHT	1 1 2.1 SL 2 2 2.9 2.9- 2.9 SL CALLIONYPICAE STROMATIICIE UNIDENTIFIFO		0 • 3 0 • 6
H 3 22 CE FAGEAULIS FURYSTOLE PEPPILUS TRIACANTHUS PRIONOTUS CAROLINUS ETROPUS MICROSTOMIS SYMPHIPUS SP.	SAMPLING CEPTH 0-6M 28 22 4.6 3.0-7.4 TL 3 3 6.0 3.9-10.0 SL 5 5 3.1 2.5-3.9 SL 7 7 7.3 2.6-10.3 SL 4 4 3.0 2.9-3.1 SL		3.4 0.4 0.6 0.8 0.5
ADDITIONAL LARVAE CAUGHT			
F 4 22 09 ENGENULIS FURYSTOLE CENTROPRISTIS STRIATA POMATOMUS SALTATRIY ALXIS SP. PEPELLUS TRIACANTHUS PEICNOTUS CAROLINUS PRIONOTUS EVOLANS CITHARICHTHYS ARCITERONS ETROPUS MICROSTOMUS	SAMPLING OEPTH 0-15M 134		40.6 7.3 2.1 6.4 3.3 20.9 0.6 (8.2 120.9
H 1P FOGL OS SINA O REINCUS SCOPHTHAL MUS AQUONUS A DO LT IONAL LARVAF CAUGH 1	4 4.5 3.8- 6.7 SL I I 3.3 SL I OPHICITAE SYNGNATHICAE URANCSCCFITAE BLENNITCAE STROMATEICAE UNIDENTIFITO		1.2

TABLE 3. (continued)	100		
CRUISE DATE  0661C 1966  STA. 0 M SPECIES ANALYZED  H 5 22 08  PISCOCNOPHIS CPUENTIFER  FNCFAJLIS EURYSTOLE  LCPHIUS AMERICANUS  UROPHYCIS CHUSS  MERLUCCIUS BILINEAR IS  CENTROPPISTIS STRIAIA  PERFETOMUS SALTATRIX	NUMBER LENGTHS (MM) NO. TOTAL MELS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M 3 3 44.6 28.8-61.0 TL 200 75 7.0 3.8-19.0 TL 1 1 6.3 3 7 3.7 2.9-5.7 NL 1 1 14.8 NL 28 28 4.9 3.2-7.3 SL 17 17 10.3 7.7-13.2 SL	NUMBER LENGTHS IMMI NO. NO. PER 10M TUTAL MEAS. MEAN RANGE MEAS. EGGS LAPVAE EGG SAMPLING DEPTH 18-24M 1.0 6 6 8.2 5.3-12.5 TL 64.6 1 1 1C.8 TL 0.5	
MENTICIRRHUS SP. T AUTOGOLARUS ADSPERSUS ALXIS SP. PEPRILUS TRIAGANTHUS PRICNOTUS CAPOLINUS PRICNOTUS EVOLANS FIT FOR ICHTHYS ARCTIFRONS FIT COUS MICROSTOMUS HIPPOGLOSSINA DBLUNGUS	1 1 3.0 SL  12 12 7.7 3.4- S.1 SL  325 50 4.1 2.0-14.5 SL  101 23 5.3 3.1- 8.2 SL  453 26 6.1 4.1-10.7 SL  114 25 6.7 2.6- 9.9 SL  10 8 8.9 4.7-12.9 SL  PISODONOPHIS CRUENTIFER  CPHIDIIC/E  LRANCSCCFICAE  STROMALEICAE  UNIOENTIFIED	1 1 12.6 TL 0.3 13 13 7.0 2.9-16.5 St 105.0 2 2 4.1 4.0-4.3 St 32.6 1 1 4.8 St 0.2 42 42 6.5 3.3-12.4 St 146.4 12 12 8.0 4.9-11.6 St 36.9 1 1 11.3 St 3.2 CPHIDIIDAE	
H 6 21 0 9 ENGRAULIS EUR YSTOLE UFCFHYCIS CHUSS TAUTOGOLABRUS ADSPERSES AUX IS SP.	SAMPLING DERTH 0-15M 96 59 7.4 4.4-15.0 TL 16 13 4.2 2.7- 7.8 NL 1 1 6.9 TL 16 16 5.5 4.0-15.1 SL	SAMPLING DERTH 10-33M 7 7 3.7 3.1-4.2 NL 25.3 0.3 5.3	
PEPFILUS RIACANTHUS PRICIDITUS CAPOLINIS CITHARICHTHYS ARCTIFRENS E TREPUS MICROSTOMUS HIPFOGLOSSINA DBLINCUS GLYFTOCEPHALUS CYNOGLESSUS LIMANDA FERRUGINEA	46 46 5.2 2.8-18.2 SL 36 36 4.6 2.8- 6.6 SL 74 25 5.3 3.1-13.2 SL 31 31 6.9 3.3- 9.5 SL 51 51 5.4 3.7- 7.5 SL 1 20.1 SL	1 1 5.7 SL 12.0 10 10 6.8 3.3-15.2 SL 25.5 1 1 6.6 SL 10.3 2 2 4.4 4.1-4.6 SL 17.0 4 4 10.7 9.7-11.9 SL 1.3	
A COST SONAL LARVAE CAUGHT	OPHICHTHICAE CPHIOLIC &E UR ANOSCOPIOAE	OPHI0110AE	
. 7 . 01 . 00	CAMPAGE DECEMBER OF A SER	CAMOU THE DEOT ! 10 22M	
F 7 21 08 ENGFAULIS EURYSTOFE LOPHIUS AMERICANUS	SAMPLING DEPTH C-15 M 2 2 16.8 8.1-25.5 TL	SAMPLING DERTH 18-33M 0.7 5 5 13-3 5.1-24.2 YL 1.7	
UFCFHYEIS SP. MERIUGIUS BIUNEARIS	12 11 2.4 2.0- 2.6 NL O	1 1 2.5 NL 4.0	0.0
AUX IS SP.	13 13 6.0 4.1-12.5 St 14 13 4.3 2.8- 5.5 St	4.3 2 2 6.0 5.0- 1.1 SL 4.9	
REFREIUS TRIACANTHUS CITHARICHTHYS ARCITIFRONS I IMANDA FERRUCINEA ADDITIONAL LARVAE CAUGHT	11 8 4.3 3.4- 6.0 SL	15 13 13.0 10.7-15.2 SL 8.3 2 2 10.0 9.9-10.0 SL 0.7	
J I 22 OE ANCHDA MITCHILLI ETROPUS MICROSTOMUS ADDITIONAL LARVAE CAUGHT	SAMPLING CEPTH 0- 6M 4 4 9.1 6.3-11.2 TL 3 3 3.7 3.4- 4.2 SL UNIDENTIFIED	0.5 0.4	
			•
J 2 22 08 ETROPUS MICROSTOMUS ADDITIONAL LARVAE CAUGHT	SAMPLINC DEPTH 0- 6M 2 1 3.3 SL URANOS CORICAE	0.2	
J 3 27 DB	SAMPLING DEPTH C- 6M		
E TREPUS MICROSTOMNS SYMEPURIS SR. ADDITIONAL LARVAE CAUCHT	3 1 2.8 SL 2 1 3.8 SL UNIDENTIFIED	0.4	
			-
J 4 22 D8  ENGRAULIS EURYSTONE MICEOPOGON UN EULATUS PERFILUS TRIA(ANTHUS PRIEND TUS CARCE INNIS CITHARICHTHYS ARCHIFRENS ETREPUS MICROSTOMNIS SYMFHURUS SP. A OOITIONAN LARVAE CAUGHT	SAMPLING DEP TH C- 6M 6 6 11.7 6.3-21.0 TL 48 47 3.8 3.0- 6.0 SL 3 2 4.5 2.2- 6.8 SL 4 4 5.6 3.5- 7.9 SL 1 1 11.8 SL 24 22 6.6 2.2-11.7 SL 7 6 4.S 3.4- 5.4 SL CPHIDIICLE SCIAENIDAE	0.7 5.8 0.4 0.5 0.1 2.9	
	TRIGLICAT		

TABLE 3. (continued)	107		
CPUI SE DATE E6610 1966 STA. D. M. SPECIES ANALYZEC J. 5. 22 CE PISCOONOPHIS (RUENT IFER FAGRAULIS EURYSTDIE URCFHYCIS CHUSS CENTROPRISTIS STRIATA MICPOPOGON UNDULATUS ALX IS SP. PEPPILUS TRIACANTHUS PPIDNITUS CAPOLINUS CITHAPICHTHYS ARCIIFRCNS ETPOPUS MICROSTOMUS SYMFHURUS SP. ADDITIONAL LARVAE CAUCHT	NUMBE P LENGTHS IMM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH C-15M  1	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS	NO. PER 10M LAPVAE EGGS 0.3 18.8 0.6 2.4 0.3 0.3 4.2 1.5 3.6 103.3 0.3
J 6 23 D8 PISCONDPHIS CRUENTIFER ENGRAULIS EURYSTOLE LIFHIUS AMERICANUS UROPHYCIS CHLSS CENTROPRISTIS STRIATA PEMATOMUS SALTATRIX AUX IS SP. PEPPILUS TRIACANTHUS PRIONOTUS CARCLINUS, CITHARICHTHYS ARCFIFRONS ETRCPUS MICROSTOMUS HIFFOGLOSSINA OBLINIUS GLYPTOCEPHALUS CYNOGLCSSUS SYMPHURUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING OEPTH C-15M 2 2 44.3 39.7-49.0 TL 70 42 10.2 5.0-27.5 TL 2 2 6.5 5.7- 7.4 TL 5 5 13.4 11.6-15.5 NL 1 1 7.6 SL 1 1 17.6 SL 1 1 15.7 SL 9 9 4.4 2.6- 6.5 SL 6 5 8.4 7.3- 9.6 SL 86 25 7.4 5.1-13.2 SL 107 25 6.1 3.3-11.6 SL 11 11 7.6 4.0-13.3 SL 1 1 27.1 SL 0PHIOLICE URANOSCCFICAE	2 2 8.6 6.9-10.3 TL 2 2 7.4 4.7-10.2 NL  2 1 8.0 SL 3 3 10.5 5.8-13.7 St 8 8 6.4 3.4-11.0 SL 3 3 9.8 8.3-10.6 SL 1 1 34.7 St  DPHIDIIDAE TRIGLIDAE	0.7 23.3 0.7 2.2 0.3 0.3 0.3 3.0 2.5 2.5 28.7 4.3 0.6
J 7 23 08 PIS CODNOPHIS CRUENT IF ER LIPMIUS AMERICANUS UROPHYCIS SP. UPOFHYCIS CHUSS MERLUCCIUS BILINEARIS I AUTOGOLA ERUS A DSPERSUS AUXIS SP. PEPRILUS TRIACANTHUS CITHARICHTHYS ARCFIFRCNS ETROPUS MICROSTOMIS HIPFOGLOSSINA OBLINICUS GIYFTOCEPHALLS CYNOCLOSSUS LIMANDA FERRUGINEA ADDITIONAL LARVAE CAUGHT	SAMPLING OFPTH 0-15M 6 6 45.8 32.0-67.5 TL  0  17 16 7.4 5.0-10.3 SL 9 9 6.9 6.5-8.5 SL 2 1 1 5.0 6 6 3.0 2.7-3.2 SL  PISODONOPHIS CRUENTIFER UNIDENTIFIED	SAMPLING OEPTH 12-33M  1	2.1 t.7 78.7 0.3 0.3 0.3 5.7 72.4 100.6 11.0 22.5 0.3
K 1 24 08 ANCHIA HEPSETUS MICFOPOGIN UNDULATUS PRICHOTUS CARCLINUS SYMFHURUS SP. ADDITIONAL LARVAF CAUGHT	GDBIIDAE UNIDENTIFIED		0.5 0.7 0.2 0.2
K 2 24 0 8 A NCHOA HEPSETUS MICFOPOGON UN CULAFUS AUXIS SP. PEPPILUS TRIACANTHUS PFICNOTUS CARCLINIS CITHARICH THYS ARCITERONS SYMFHIRUS SP. ADDITIONAL LARVAE CAUCHT	SAMPLING OFP TH C- 6M 7 7 10.7 3.6-21.0 TL 12 12 5.3 4.8-5.8 SL 1 1 6.1 SL 2 2 3.5 3.5-3.5 SL 4 4 3.6 2.3-5.0 SL I 1 4.2 SL 5 3 8.7 4.1-11.1 SL CPHIDITIZE UNIDENTIFIED		0.8 1.5 0.1 0.2 0.5 0.1

TABLE 3. (continued)		140,445	-
COULSE DATE TOOLS TOOL TOOL TOOL TOOL TOOL TOOL TOO	NUMBER LENGTHS IMM! NC. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15M 25 24 6.7 2.7-18.1 TL 1 1 4.4 NL 2 2 4.6 3.2-6.1 SL 4 4 4.7 4.2-5.3 SL 1 1 4.9 SL 44 25 3.5 2.2-11.8 SL 9 9 4.6 2.8-6.8 SL SYNODON TIDAE COMIDITIE ERRANICIE GRAMISTICAE COBITOAE UNIOENTIFIED	**************************************	NO. PER 10M LAFV AE EGGS 7.6 0.3 0.6 1.2 0.3 13.3 2.7
K 4 23 CE PISCODNOPHIS CRUENT IFFR ENGRAULIS EUPYSTOFF LOPHIJS AMERICANUN CENTROPRISTIS STRIATA POMATOMUS SALIBERIX MICECPOGON UNCULATUS PEPPILUS TRIACANUTHUS PRICNOTUS CAPOLINIS CITHARICHTHYS ARCHIFFONS ETROPUS MICRO STOMUS HIPFOGLOSSINA OBLINICUS SYMPHURUS SP. ACOLT IDNAL LARVAE CAUGHT	SAMPLINE CEPTH 0-15M 4 4 52.6 39.8-63.5 TL 18 16 9.7 4.0-24.1 TL  1 1 6.6 SL 1 1 4.3 SL 1 1 3.4 SL 1 1 4.0 SL 2 2 7.5 6.2-8.7 SL 8C 25 4.5 2.3-8.3 SL  2 2 4.8 4.2-5.4 SL PISOGONCPHIS CRUENTIFEP SYNDDONT 1C/E LCPHIFCEMES CPHICITICAE LPANCS CCFICAE STROMA TEICAE	SAMPLING DEPTH 1 ← 24M  1	1.3 5.8 0.2 0.6 0.3 0.3 1.1 0.3 1.1 26.5 0.5
K 5 23 OE OFFICHTHUS OCELATUS PISCONDOPHIS POPENTIFER ANCHDA HE PSETUS E NGFAULIS EURYSTONE UPOPHYCIS CHUSS CENTPOPRISTIS STRIATA MEN ILLIBOHUS SP. T MUTOGILARRUS ADSPERSUS ALVIS SP. PEPRILUS TRIACANTHUS PPINNTUS CAPILINNS CITHARICH THYS ARCHIFRONS ETRIPUS MICROSTOMNS HIPFEGLOSSINA CRUDOSSUS ADDITIONAL LARVAE CAUGHT	SAMPLING OEPTH C-15M  1 1 61.C 7L  1 1 61.3 7L  3 3 13.2 12.0-15.7 7L  2 2 15.0 12.1-17.C 7L  10 8 4.1 2.7-5.7 NL  2 2 5.C 5.0-5.C SL  1 1 5.9 SL  1 1 14.1 SL  16 16 6.1 4.0-11.0 SL  46 25 7.6 4.6-10.7 SL  34 23 5.9 2.1-11.5 SL  3 3 10.2 6.2-14.3 SL  PISDODNOPHIS CRUENTIFER CPHIOTICAE GDBIIGAE	9 7 3.8 2.5+ 4.5 NL 1 1 5.4 SL 2 16 16 7.1 4.7-11.5 SL 1 25 29 f.6 6.6-12.6 SL 9 8 5.1 4.5- 7.1 SL 3 3 3 5.4 8.5-10.2 SL DPHIDIIDAE	0.3 0.3 1.0 0.6 4.5 0.8 0.3 0.3 7.5 0.2 18.8 11.9 1.4
K 6 23 08  LCPHIUS AMERICANUS  UFCFHYCIS CHUSS  ALXIS SP.  PEPRILUS TRÍACANTHUS  PFINDTUS CAPCLINAS  CITHARICHTHYS ARCTIFRONS  FTROMS MICPOSTOMAS  HIPPOSLOSSINA ORLÓNCUS  ADDITIONAL LARVAF CAUGHT	UP ANDS COFICAE	SAMPLING DEPTH 18-33M 1 1 12.4 TL  2 2 6.0 5.0- 7.1 SL  28 26 6.6 4.2-11.7 SL 2 2 5.5 4.1- 7.6 SL  DPHIGITAC UNIDENTIFIED	1 .2 3 .7 0 .3 2 .2 0 .3 26 .7 6 .4 1 .8
K 7 23 0.8  UPOFHYCIS CILSS ALXIS SP.  PEPRILUS TRIACANTHUS CITHARICHTHYS ARDIIFPONS SIPPOBLIS MICROSTOMAS HIPPOBLOSSINA DRIANGLS ACOIT TONAL LARVAE CAUCHT	SAMPLINC CEPTH 0-15M 5 2 2.6 1.5- 3.8 NL 1 1 12.5 SL 2 1 2.5 SL 4 4 4.0 3.2- 4.9 SL 1 1 3.9 SL 5 4 4.9 3.0- 7.4 SL	2 2 4.6 4.4- 4.9 SL 2 2 5.5 5.5- 5.5 SL 1 1 2.7 SL OPHIDITORE UNIDENTIFIED	1.7 0.3 1.3 1.3 1.0

TABLE 3. (continued)			
CPUISE DATE  [6610 1966  STA. D.M. SPECIES ANALYZED  1 1 25 08  ENGFAULIS EURYSTOFE  LAR DAUS FASCIATUS  MENTICIRPHUS SP.  MICTOPOGON UNCULATUS  ETRCPUS MICROSTOMIS  SYMFHURUS SP.  A DOITIONAL LARVAE CAUGHT	NUMBER LENGTHS IMMI NO. TOTAL MIAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-6M 40 39 8.6 2.1-19.0 TL 2 2 5.6 5.1-6.2 SL 1 12 12 4.9 4.1-5.7 SL 1 1 10.7 SL 8 8 5.3 2.9- S.6 SL SYNODCRTICAE OPHIOLICAE COBITOAE UNIDENTIFIED	************ LARVAE ************************************	AO. PER 10M LAFV /E EGGS 4.8 0.2 0.1 1.5 0.1
E 2 25 08  FMGRAULIS EURYSTOIE LARIMUS FASCIATUS MENTICIRRHUS SP. MICROPOGON UN QULATUS ALXIS SP. PRICNOTUS CARCLINUS ETREPUS MICROSTOMUS SYACTUM PAPILLOSUM SYMPHURUS SP. ACOIT KINAL LARVAE CAUGHT	SAMPLING DEP TH		5.8 0.5 0.4 1.5 0.1 0.5 1.8 0.7 5.8
ANCHOA HEPSETLS ENGRAULIS EURYSTOLE UROPHYCIS CHUSS CENTROPRISTIS STRIATA LARIMUS FASCIATUS MENTICIRRHUS SP. MICECPOGON UNCULATUS AUXIS SP. FUTTYNNUS ALLETTERATUS PEPPILUS TRIACANTHUS PRIONOTUS CARCLINUS CITHARICHTHYS ARCTITRONS ETROPUS MICROSTOMUS HIPFOGLOSSINA DBLIN CUS STACIUM PAPILLOSUM SYMPHURUS SP. ADDITIONAL LARVAE CAUCHT	LOPHILECEMES OPHIDITAE SERRANILEE CARANGIDAE SCIAENICAE LABRIDAE OR SCARICAE CALLIONYMIDAE COBIIDAE STRCMATELICAE TRIGLICAE	SAMPLING DEPTH 16-24M  16  15  11.3  3.8-18.8 TL  8  8  6.6  3.6- 8.4 SL  5  5  4.7  2.0- 6.0 SL  1  34  33  6.6  2.8-11.1 SL 1  1  7.2  SL  SYNODONTICAE OPHIDIID AE SCIAENIDAE GOBIIDAE UNIDENTIFIED	1.0 fI.R 0.3 2.8 1.0 1.3 0.6 1.0 0.3 2.0 0.6 0.2 46.0 0.2 1.6 5.8
E 4 25 0 8  FNG FAULTS EUR YSTOHE UROPHYCIS CHUSS C FN TROPRISTIS STRAATA I ARIMUS F ASCLATUS MICFOPOGON UN TULATUS ALXIS SP. PEPRILUS TRIACANTHUS RFI CHOTUS CARCLINUS C ITHARICH THYS ARCIJIFRONS FTP CPUS MICROSTOMUS HIPFOGLOSSINA ORLONCUS SYACIJM PAPILLOSUM SYMFHURUS SP. A DOLTIONAL LARVAE CAUGHT	SAMPLING DEP TH C-15M  53	SAMPLING CEPTH 18-33M 3 3 15.4 14.1-16.3 TL  I 1 7.9 SL  4 4 5.4 3.5- 5.8 SL  3 3 4.6 4.2- 5.3 SL 10 10 4.5 3.2- 8.3 SL  OPHIDIIOAE	17.7 0.3 1.8 2.3 7.0 1.3 3.3 0.3 4.3 10.5 0.7 0.3

CPUISE DATE P661C 1966 STA. D.M. SPECIES ANALYZED 1.5. 25. 0.9 ANCHOA ME PSETIS DEFOILUS TO LACANTHUS CITHARICH THYS ARCITERONS FIROPUS MICROSTOMUS SYMEHURUS SP. ADDITIONAL LARVAE CAUGHT	NOTE TO SET OF SCAPICAE  SOURCE OF SCAPICAE  CARDINAL MEAN EAN EAN EAN EAN EAN EAN EAN EAN EAN	PARABANA LARVAE ************************************	PER 10 M LARVAE EGG S 2.7 2.7 0.6 0.7 0.3
* 1 25 CE ANCHMA PERSETUS CENTROPRISTIS STRIATA LIBINIS FASCITUS MENTICIPRHUS SP. MICROPHIGON UNCULATUS AUXIS SP. PEORILLS TRIACANTHUS ETREPIS MICROSTOMUS CYMPHURUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M 57		6.9 0.1 0.5 0.6 1.8 0.1 0.1 0.2
* 2 25 0 9  FAGEAULIS EURYSTHE LAK PHIS FASCIATUS MICHOPHENN UNCULATUS AUXIS 50. FUTHYTHUS ALL ETTERATUS FIRCOUS MICROSTOMUS STACIUM PAPILLOSHM SYMPHUPUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DFP TH		7.3 1.1 11.8 0.2 0.1 1.1 0.4 2.3

TABLE 3. (continued)	113	
COULSE DATE CHEIC 1966 STA. D. M. SPECIES ANALYZED W. W. W. S. S. C. CALTECHELYS PERRYAE CHEICHTHUS GEMEST SARTINELLA ANCHOVIA ENGRAULIS EUPNSTOLE CYNCSTION SP. LARIMUS FASCIATUS MENTILIBOHUS SP. MICPOPOGON UNDULATUS ALVIS SP. CUTHYNNUS ALLETTERATUS PETCHOTUS CAFOLIVUS RETHUS CCELLATUS ETROPUS MICROSTOMUS SYACTUM PAPILLOSUM SYMPHURUS SP. ACOITIONAL LARVAE CAUGHT	TOTAL MEAS, MEAN PANGE MEAS, EGGS TOTAL MEAS, MEAN SAMPLING DEPTH 0-15M  1 1 77.5 1 1 24.1 21 7.2 5.5-9.4 TL 195 85 5.1 2.5-11.2 TL 1 1 3.6 13 12 2.5 2.3-4.4 SL 9 9 3.3 2.7-4.0 SL 24 24 3.4 3.0-4.1 SL 5 5 5 4.1 3.4-4.5 SL 7 7 6.3 3.9-11.1 SL 1 1 5.5 5 6.2 3.7-9.4 SL 5 5 6.2 3.7-9.4 SL 5 5 6.5 5.0-9.2 SL 11 11 4.9 3.P-7.3 SL 20 20 5.7 2.8-9.3 SL	ENGTHS (MM) NO. NO. PER 1CM
M 4 25 CE OISCONDOPES (RUENTIFER SARCHAPELS FURNSTHEE MYCTOPHID AE CERATISCOPPELS MARMING! CIAFMUS FASCITIUS MENTICIPPHUS SP. ALVIMUS FASCITIUS KATSUMONUS PELAMIN PEPRILUS TRIACANTHUS PRICHOTUS CAPILINUS BETHUS CELLATUS ETROPUS MICROSTOMUS SYNCHUM PAPILOSUM SYMEHURUS SP. ADDIT INNAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M SAMPLING DEPTH  1 1 22.2 TL  18 18 7.5 6.5-8.8 TL  88 54 6.4 2.5-10.2 TL 3 2 6.0  1 1 4.0 SL  1 1 10.3 SL  1 1 9.4  1 2 2 6.0 5.1-7.0 SL  4 4 6.1 4.2-6.8 SL  1 1 5.5 SL  5 5 2.9 2.0-3.5 SL  11 11 4.3 2.2-7.3 SL  6 6 4.1 2.9-7.1 SL  45 44 3.8 2.2-5.4 SL  8 8 4.8 2.6-12.2 SL  6 6 5.5	0.3 5.8 7.1 7.1 7.8 7.3 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5

CPUISE DATE D661C 1966 STA. D 4 SPECIES ANALYZED  * 5 25 CB  ENGRAULIS EURYSTDIE CERTISCORFLUS MARMINEI DIA PHUS SP. LIMFANYCTUS ALATUN OR PHOTONOTUS LAWFANYCTUS CUPRINUS MAITICIRPUS SP. MICEDPORGON UNDULATUS AUXIS SP. ELTHYNNUS ALLETTEMATUS PRICHOTUS CAPOLINUS RCTHUS POFILATUS SYACTUM PAPILLETIEM SYMFHJRUS SP. ADDITIONAL LAFVAF CAUCHT	4 4 3.1 2.9-3.5 SL 1 1 2.7 SL 1 1 3.4 SL 1 1 4.6 SL 2 2 6.1 4.9-7.4 SL 2 2 5.5 5.7-6.2 SL 3 3 6.3 4.0-5.0 SL 19 19 4.2 1.9-11.3 SL 7 6 4.5 3.4-6.2 SL	NUMBER LENGTHS (MM) ND. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 16-3M 21 2C 6.2 3.6-1C.8 TL 1 1 4.8 SL 2 2 3.6 3.2- 4.5 SL 1 1 7.1 SL 1 1 6.6 SL 2 2 2.C 2.4- 3.7 SL 1 1 2.4 SL 2 2 3.6 5.1- 5.2 SL 6 6 5.1 4.6- 6.1 SL  STROMATICAE SYNOBONT HEAE PARALEPIDICAE LOPHIFORMES BREGMACERCTICAE SERPANIDAE CARANGIDAE CAR	NC. PER 10M LARVAE EGG 5 69.3 0.7 0.3 0.3 1.9 0.3 1.9 0.6 0.3 1.3 2.6 1.0 6.3 3.8
N 1 25 DB  LETHARCHUS VELIFEK  SARCINELLA AN CHOVIA  ENG FAULTS EURYSTOLF  CENTROPRISTIS STRIATA  LEPTMUS FASCIATUS  MENTICIRRHUS SP.  MICEOPOGON UN CULATUS  ALXIS SP.  ELTHYNUS ALLETTEMATUS  PRICHOTUS CAPCLINHS  PRICHOTUS CAPCLINHS  CYCLOPSETTA FIMBRIATA  SYACIUM PAPILLOSUM  SYMPHURUS SP.  ADDITIONAL LAPVAE CAUCHT	SAMPLING DEP TH C-15M  1 1 40.5  5 5 16.3 13.0-19.0 TL  465 145 6.4 2.9-18.8 TL  1 1 4.5  32 22 3.C 2.2-3.7 SL  12 9 3.1 2.4-3.6 SL  5 5 3.3 3.2-3.5 SC  1 1 6.0  SL  13 13 5.5 4.7-8.9 SL  14 4 3.2 2.2-4.5 SL  17 17 4.1 2.8-6.1 SL  8 8 7.4 3.4-17.4 SL  5 5 6.5 5.4-7.9 SL  78 25 5.1 3.1-8.3 SL  27 24 5.2 3.2-14.4 SL  MURAENILEE  SYMODDNIDAE  LOPHIDICEE  CAPAMISTICE  CAAMMISTICE  CAAMMISTICE  CAAMMISTICE  CAAMMISTICE  CALICANMICAE  GOBLIDAE  TRICHIURICE  SCORPAENIDAE  TRICHIURICE  SCORPAENIDAE  TRICHIURICE  SCORPAENIDAE  TRICHIURICE  SCORPAENIDAE  TRICHIURICE  BALISTICE  UNIDENTIFIED		0.3 1.5 140.9 0.3 9.7 3.6 1.5 0.3 3.9 1.2 5.2 2.4 1.5 23.6 8.2

TABLE :continued)	113		
CRUITSE DATE  16610 1966  STA. D. M. SPECIES ANALYZED  N. 2. 25. 0.9  ANCHOA HEPSETUS  SER WANTCULUS PUMILIC  LEP MYS. FASCLATUS  MENTICIPRHUS SP.  MICPOPACON UNDULATUS  ALVIS SP.  SCOMBEPHONGUS CAVALLA  PETROTUS CAPOLINUS  RITHUS OFELLATUS  FIROPIS MICPOSTOMUS  SYMPHURUS SP.  ACDITIONAL LARVAE CAUGHT	NUMBER LENGTHS (MM) NO. TOTAL MEZS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M 583 158 8.4 2.4-15.5 TL 2 2 7.3 6.1- 8.5 SL 4 3 3.8 3.7- 4.0 SL 1 1 4.8 SL 1 1 3.2 SL 1 1 7.1 SL 1 1 10.4 SL 6 6 7.1 6.0- 8.1 SL 2 2 3.8 3.3- 4.2 SL 4 4 6.7 3.6- 8.8 SL 13 13 6.7 3.3-10.0 SL SYNODONTICAE LOPHIFEEMES OPHIDICAE SERPANILAE CARANGICZE EARNICZE LABRICAE OR SCAPICAE BLENNICZE CONTICAE CONTICAE SERPANILAE CARANGICZE CONTICAE BLENNICZE CALLITANY**LOAE CONTICAE	NUMBER LENGTHS [MM] NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS	ND . PER 10M L FFV LE EGGS 176 .6 0 .6 1 .2 0 .3 0 .3 0 .3 1 .8 0 .6 1 .2 3 .9
CALIFORELYS PERPYWE CALIFORELYS PERPYWE CALIFORELYS PERPYWE LARGE POLITICS LARGE POLITICS SCORE ROMORUS CAVALLA PATRONOTUS CAPALINAS BETHUS OF ELLATUS SYACTUM PAPTLLOSUM CYMENURUS SP. ADDITIONAL LARVAE CALGHT	SAMPLING DEPTH C-15M 2 2 41.0 35.0-48.8 TL  5 4 5.9 4.9- 8.8 SL 1 1 4.0 SL  2C 20 3.6 2.3-11.5 SL 8 7 4.2 2.7- 6.7 SL  PURABRIELE OPHICHTEICAE SYNODCHIICAE CARAPICAE CARAPICAE CARAPICAE CARAPICAE LARPIDAE OR SCAPIDAE CALLICNYMITAE GOBIIDAE CALLICNYMITAE GOBIIDAE SCORPARNICAE 101GLICAE	SAMPLING DERTH 18-24M  1 1 72.5 TL 284 82 6.4 2.9-11.3 TL 3 3 3.5 2.9- 3.8 SL  1 1 4.8 SL 8 8 4.2 3.4- 5.1 SL 4 4 5.4 5.0-12.8 SL 5 5 4.2 3.0- 5.0 SL 11 9 5.0 3.2-10.7 SL SYNODONTIDAE BREGMACE FOTIC AE OPHIDITOAE SERRANIDAE CAR ANGIDAE LABRIDAE CALLITAY MID AE CALLITAY MID AE GOBILDAE TRIGLIDAE BALI STIDAE BALI STIDAE TETRADDIN TICAE	0.6 0.2 45.9 C.5 1.6 0.5 1.3 0.6 6.9

TABLE 3. (continued)			
CRUISE DATE  CROIS 1966  STA. D. M. SPECIES ANALYZED  N. 4. 75 CE  CEFFICHTHIS GOMESI  SARCINFILA ANCHOVIA  FNGRAULIS EURYSTDIF  RENIHOSCMA SP.  OIAFHUS SP.  LAMBAN YCTLS ALATUN OR PHOTONOTUS  CENTROPRISTIS STRIATA  ALXIS SP.  FUTHYNNUS ALLETTENATUS  SCORREROMORUS CAVALLA  PEPPILUS TRIACANTHUS  PETINOTUS CARCLINUS  ROTHUS CEFILATUS  SYACIJAM PAPPILLOSUM  SYMEHURUS SP.  ADDITIONAL LARVAE CAUGHT	1 1 5.7 SL 4 3 5.3 4.5-5.8 SL 3 3 4.1 3.6- 4.7 SL  1 1 4.3 SL 6 6 3.5 2.2-4.7 SL 1 I 10.2 SL	NUMBER LENGIFS (MM) ND. TCTAL MEAS. MEAN. PANGE MEAS. EGGS SAMPLING DEPTH 10-23M  36 33 6.1 3.5-10.6 IL 1 1 3.9 SL 1 1 2.6 SL 1 1 6.9 SL 2 2 2.7 2.5-2.9 SL 2 2 4.3 4.1-4.5 SL 9 9 4.3 3.7-5.0 SL 2 2 2.7 2.5-5.0 SL 2 2 2.7 2.5-5.0 SL 2 2 2.7 2.5-5.0 SL 3 3.7-5.0 SL 4 4 4.3 3.7-5.0 SL 2 2 2.7 2.5-7.0 SL 2 2 2.7 2.5-7.9 SL A GLIFT CRMES STANDARD S	NO. PER 10M LAFV AE EGGS  0.3 2.3 16.8 0.3 0.3 0.3 0.7 1.0 4.2 2.2 2.2 2.2 2.2 2.2 3.3
N 5 26 OF  MECTIOPS ATLANTICA SAPCINELLA ANCHOVIA ENCRULIS EURYSTOLE BENIMOSCHA SP. OIAPHUS SP. LEMANTHIAS VIVANUA ALXIS SP. EUTTYNNUS ALL ETTENATUS SCCHAR ROMERUS CAVALLA BETTHIS OCFLIATUS SYACIUM PAPTILLOSUM SYMPHURUS SP.  AEOIT INNAL LAPVAF CAUGHT	SAMPLINC CEPTH C-15 M 2 2 17.7 14.0-21.5 NL 8 8 9.6 6.9-12.0 TL 1 1 13.7 TL  25 24 5.7 3.3-22.8 SL 28 23 5.6 3.7-23.2 SL 4 4 4.6 3.8-5.9 SL 1 1 4.2 SL 13 13 3.9 2.7-5.2 SL 20 PHICHTHIDAE CYCLOTHENE SP. SYNODON TILE PARALEPICICAE CPHIDIICE SERRANICAE CPAMISTICE PRIACANTHICAE CAPAMISTICE PRIACANTHICAE CAPAMISTICE CAPAMISTICE PRIACANTHICAE CAPAMISTICE CAPAMISTICE PRIACANTHICAE CAPAMISTICE CAPAMISTICE CAPAMISTICE CAPAMISTICE PRIACANTHUPICAE COBILDAE ACANTHUPICAE SCOPPAENICAE BALISTICE TETRACOCNIDAE UNIDENTIFIED	S AMPLING CEPTH LE-234  1	0.7 2.7 0.3 0.3 1.0 0.3 9.2 9.4 1.9 0.6 4.6 1.0
P 1 26 0.P. ENERAULIS FUR YSTOLF LARIMUS FASCITIUS SYMBHURUS SP. ACDIT TONAL LARVAE CAUGHT	SAMPLINE CEPTH D- 6M 74 40 5.3 1.9- 9.2 TL 1 1 3.7 SL 28 24 3.0 2.2- 4.9 SL		9.0 0.1 3.4

TABLE 3. (continued)	117		
CRUISE CATE DEGIC 1966 STA. D. M. SPECIES ANALYZED P. 2.6 CR ENGRAULIS EURYSTDIE WENTICIPPHUS SP. MICEOPOGON UNDULATUS FUTHYNNUS ALLETTEMATUS SYMPHURUS SP. ADDITIONAL LARVAE CAUGHT	NUMBER LENGTHS (MM) NO.  IDTAL MEAS. MEAN RANCE MEAS. ECCS SAMPLING CEPTH 0-6M  106 1C1 4.8 1.9-10.0 TL  1 1 5.5 SL 2 2 5.8 5.7-5.9 SL 71 25 3.2 2.2-6.2 SL CPHIDITIZE SYNGNATHICAE SERRANILIZE CARANGICAE LABRIDAE OR SCARIDAE BLENNITIZE GOBITOAE TRIGLICAE BALISTICIE UNIDENTIFIED	NUMBER LENGTHS (MM) NO. TCTAL MEAS. MEAN PANGE MEAS. EGGS	NO. PEF 10M LAPVAE EGG 5
P 3 76 08 SARCINELLA ANCHOVIA ENGRAULIS EUR YSTDLE MENTIC TRR MUS SP. MIC FOPDGON UNCULATUS SYMFHURUS SP. ADDITIONAL LARVAF CAUCHT	SAMPLING DEPTH C-6M 4 4 6.9 4.4-11.5 TL 33 31 5.7 3.2-10.0 TL 2 2 3.1 3.1 3.2 SL 1 1 3.0 SL 3 3 3.7 2.9-4.5 SL MIRAENICAE CPHIDIICAE LABRIDAE CR SCAPIDAE CORIIDAE TPIGLICAE PALISTICAE UNICENTIFIED		0.5 4.0 0.2 0.1 0.4
P 4 26 CB  OPHICHTHUS GOMESI FREFAULIS EUPYSTOLE LARIMUS FASCIATUS AUX IS SP. ELTHYNNUS ALLETTEMATUS SCCMBEROMORUS CAVALLA GITHUS OCELLATUS SYACTUM PAPILLOSUM SYMFHURUS SP.  A COLITIONAL LARVAE CAUCHT	SAMPLINC CEPTH 0-15M  1		0.3 11.5 0.3 C.6 2.1 0.6 0.3 2.4
CPUISE DATE  0661c 1966 STA. D.M. SPECIES ANALYZED P.5. 25 CP. ENGRAULIS FUR YSTOLE CEPITOSCOPELUS MADEFENSIS DIOGENICH THYS ATLANTICUS LOPIANCHIA SP. HEMANTHIAS VIVANUS AUXIS SP. FLITYNNUS ALLETTERATUS KATSUNCHNUS OPTIMIS THUNUS ALBACARES OR ALABUNCA BETHUS OFFILATUS CITHAS ICH THYS APPLIFERING FIFEPUS MICROSTOMUS SYACTUM PAPILITISH SYMEHIPUS SP. ADOLITIONAL LARVAE CAUGHT	NUMERE LENCTHS (MM) ND.  IOTAL MEAS. MEAN RANGE MEAS. EGGS  AMPLINC DEPTH 0-15M  9 4 8.7 6.6-10.7 TL  1 1 3.7 SL  A A A A A A A A A A A A A A A A A A A	NUMBER LENGTHS (MM) NO. TOTAL MEAS. WEAN PANGE MEAS. EGGS SAMPLING DEPTH 12-33M  1 1 7.9 SL 1 1 5.8 SL 5 5 6.6 4.5- 8.0 SL  1 1 4.1 SL 1 1 3.9 SL 1 1 3.9 SL 1 1 3.9 SL 1 1 3.0 SL 0PHICHTHIDAE CYCLOTHUNE SP. SYNODONTICAE PARALEPID 10AF LCPHIFORMES GRAMMISTITAE APDGENIOAE MALACANTHIS SF. CARANGIOAF PCMACENIR ICAE COB 110AE COB	PER 10M LARVAE EGG S 3.0 0.3 0.3 0.3 4.1 0.7 0.7 0.7 4.5 0.3 6.8 0.9

CPUISE DATE  F6611 1966 STA. D W SPECIES ANALYZED  A 1 13 09  UFCFHYCIS CHUSS  AODITIONAL LARVAE CAUCH	NUMBER LENGTHS [MM] NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH C-3M 8 8 9.1 7.5-10.4 NL UNIDENTIFIED	**************************************	NO. PER LOM LAPVAE EGGS 0.5
A 2 13 09 ENCETYOPUS CIMBREUS URCENCIS SP. MERUDCIUS BILLNEARIS THUTOGA ONITIS PEPFILUS TRIAGNITHUS ADDITIONAL LARVAE CAUGH	SAMPLINC CEPTH 0-15M 2 5 4 2.4 2.2- 2.7 NL 2 2 2.9 2.6- 3.3 NL 15 2 2 5.1 4.8- 5.5 SL I STROMATEICAE	SAMPLING OEPTH 1E-24M  3 2 3.1 3.1-3.2 NL 9 7 2.0 2.6-3.7 NL 1 1 2.2 TL	0.0 C. E 2.0 2.1 5.8 0.2 0.6
A 3 13 09 ENCHELYOPUS CIMBRIUS UPOPHYCIS CHUSS MERLUCCIIIS BILINEARIS ALXIS SP. CITHARICH THYS ARCTIFRONS HIPPOGLOSINA DBLANCUS SCOPHTHALMUS AQUINUS ADDITIONAL LARVAE CAUCH		SAMPLING OFFTH 16-24M 3 3 3.1 2.5-3.5 St 0 3 2 5.5 5.1-6.8 Nt 9 8 3.9 2.8-4.6 Nt 23 1 1 4.4 St 2 2 3.2 2.9-3.4 St	0.5 0.3 10.3 5.5 62.1 0.2 0.3 0.6 0.9
A 4 13 09  FREFEYOPUS CIMBRIUS UND PHYCIS SP.  MER LUCCIUS RILLINEAR IS TAL ING OLABRUS ADSPEFSUS CIT HAR ICHTHYS ARCITEPONS HIEFOGLOSSINA OBLON CUS SCO PHTHALMUS AD UNSUS GLY FIDGEPHALMS CANDICOSSUS ADDITIONAL LARVAE CAUCH	SAMPLINC CEPTH C-15 M 4	SAMPLING CEPTH 1E-33M 18 18 3.1 1.9- 4.1 St 0 126 32 3.C 1.7- 4.9 NL 91 86 3.8 2.3- 6.5 NL 22 12 12 6.2 5.3- 7.2 St 10 9 5.2 3.7- 6.1 St 2 2 4.2 3.5- 4.8 St 1 1 8.5 St	7.2 0.7 64.9 71.1 5.4 0.3 22.0 7.8 1.9 0.3
A 5 17 C9  ENCIFIEYOPUS CIMBRIUS  UPOPHYCIS SP.  UROFHYCIS CHUSS  MERIUCCIUS BILLNEARIS  TAUTOGOLABRUS ADSPERSLS  PEPFILUS TPIACANTHUS  CITHAPICH THYS ARCITERONS  HIPFOGLOSSINA OBLONCUS  ACDITIONAL LARVAE CAUCH	SAMPLING DEPTH 0-15M  23  172	SAMPLING DEPTH 18-23M 15 14 2.1 1.6-3.9 St 23 1 1 2.9 65 15 3.7 1.5-5.9 NL 201 198 4.8 1.8-7.5 NL 116 2 2 5.1 2.5-7.7 TL 5 5 7.4 6.2-8.7 SL 6 5 4.7 3.4-6.2 SL UNIDENTIFIEC	5.0 14.6 0.3 73.3 126.1 72.3 0.7 0.3 5.3 4.7
A 6 13 09 LOPHIUS AMERICANUN ENCHELYOPUS CIMBRIUS UPO PHYCIS SP. UPO PHYCIS CHUSS MERIUCCIUS BILINEARIS CITHARICH THYS ARCTIFRONS HIPFORLOSSINA OBLONOUS LIMANOA FERRUGINEA ADDITIONAL LARVAE CAUGH	SAMPLINC NEPTH 0-15M  8 8 5.8 4.8-7.8 TL  1 1 3.7 SL 15  34R 18 4.0 3.0-5.2 NL  86 £3 5.R 2.7-11.9 NL  8 8 6.7 5.6-8.2 SL  1 1 4.2 SL	SAMPLING DEPTH 18-33M 10 10 5.7 4.3- 6.2 TL 1 1 2.0 93 16 4.3 3.5- 5.4 NL  131 123 5.9 4.1-11.5 NL 9  1 1 4.9 SL 1 1 6.2 SL  LEPHIFORMES	5.7 0.6 31.0 116.0 69.5 2.7 0.6 0.3
A 7 14 C9  CIAFHUS SF. ICPHIUS AMERICANUS UFCFFYCIS SP. MERLUCCIUS BILLNEAPIS CITHARICHTHYS ARCIIFRONS ADDITIONAL LARVAE CAUCH	SAMPLING OEPTH C-12M 2 2 7.E 6.9- 8.7 SL 9 9 4.9 3.4- 7.6 TL 109 18 4.5 3.2- 6.0 NL 8 1 63 5.0 3.7-20.0 NL 0 6 5 6.3 5.9- 6.8 SL SYNODONTICAE CPHIOTICAE LABRIDAE OR SCARIDAE	SAMPLING CEPTH 16-3CM  6 6 5.8 3.8-1C.C TL  8 5 4.7 3.4-5.5 NL  113 1C7 5.2 2.9-21.0 NL  1 1 6.8 SL	0.7 5.1 37.8 66.9 2.2
E L 14 09 ENGRAULIS EURYSTOLE ENCHEL YOP US CIMBRIUS UFFICHYCIS CHUSS MER LUCCIUS BILLNEARIS PPIONATUS CAR CLINIS FIFFICLESSINA OBLONIOS SCOPHTHALMUS AQUOSUS ADDITION AF LARVAE CAUCH	SAMPLING DEPTH C- 6M 1 1 17.0 4 4 1.8 1.5-2.3 SL 5 3 5.8 6.7-15.5 NL 13 10 2.7 2.4-3.2 NL 2 2 3.3 3.0-3.7 SL 2 1 1 2.8 SL UNIDENTIFIED		0.1 0.5 0.6 1.6 0.2 0.2 0.1

TABLE 3. (continued)	117		
CRUISE DATE D6611 1966 STA. D M SPECIES ANALYZED B 2 14 09	NUMBER LENGTHS IMM! NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15M 1 1 10.5 TL	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN FANGE MEAS. EGGS	ND. PER 10M LARVAE EGGS
ENGRAULIS EURYSTÖLE UFC FHYCIS CHESS MERLUCCIUS BILINEARIS HIPFOGLESSINA OBLONCUS SCOPHTHALMUS AQUOSUS ADDIT TONAL LARVAE CAUGHT	21 7 5.1 2.9- 6.8 NL 13 9 2.8 2.4- 3.1 NL 0 5 5 4.7 3.8- 5.7 SL 2 2 4.0 2.7- 5.3 SL		6.4 3.9 (.( 1.5 0.6
P 3 16 09 FAGFAULIS EURYSTOLF ENCHELYOPUS CIMBREUS UESPHYCIS SP. MERLUCCIUS BILINEARIS T AUTOGOLABRUS ADSPERSUS PEPFILUS TRIACANTHUS CITHARICH THYS ARCITERONS HIPPOGLOSSINA ORUM CUS SCOPHTHALPUS ADUOSUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEP TH. C-15 M 11	SAMPLING CEPTH 18-33M 2 2 15.1 13.8-16.5 TL 19 18 2.3 1.6- 5.3 SL 303 21 2.7 1.8- 4.8 NL 567 558 5.6 2.4-17.3 NL 19  1 1 3.8 SL 129 25 6.2 3.5- 8.4 SL 3 3 4.2 2.7- 5.3 SL DPHIOTIONAE UNIDENTIFIED	4.0 6.3 0.0 456.1 200.4 17.1 1.3 0.6 45.4 5.8 0.3
P 4 14 09 E AG PAULIS EUR YSTDIF E NCHELYOPUS C M 8R IUS UFOGHYCIS SP. URIPHYCIS CHUSS MERLUCCIUS BILINEARIS TAL TOGCLA BRUS AD SPERSUS PEPFILUS TRIACANTHUS GITHARICH THYS ARCHIFFRONS HIPPOGLOSSINA DBLOYGUS GLYFTOCEPHALUS CYNCILCSSUS	SAMPLING DEPTH C-15M 5 5 9.3 7.9-10.7 TL 4 3 2.0 1.4- 2.4 NL 504 34 3.1 1.3- 5.3 NL 12 12 3.5 2.3- 5.8 NL 1 1 7.0 TL 3 3 2.6 2.5- 2.8 SL 42 40 5.5 2.8-12.5 SL 53 51 4.0 2.7- 5.4 SL	SAMPLING CEFTH 18-33M 3 3 11.C 9.8-11.6 TL 46 44 3.7 1.7-6.5 SL 271 1S 3.C 2.1-4.1 NL 179 179 4.8 1.8-13.0 NL 3  111 25 6.C 3.5- S.8 SL 10 10 4.5 3.4-5.9 SL 2 2 12.1 5.0-19.2 SL	2.5 15.3 91.5 168.0 63.3 2.7 0.3 1.0 49.6 19.2 0.7
LIMANDA FERRUGINEA A DOITION AL LARVAF CAUGHT	DPH10110AE	1 1 6.3 St DPHIDIIDAE	0.3
	UNIDENTIFIIO	UNI DENTIF IE D	
8 5 14 09 PISODONOPHIS CRUENTIFER	SAMPLING DEPTH 0-15M 1 1 33.4 TL	SAMPLING DEPTH 18-33M 1 1 41.5 TL	0.6
LICETIUS AMERICANUS ENCHELYOPLS CIMBRIUS UPOPHYCIS SP. MERLUCCIUS BILINEARIS TAUTOGOLA BRUS ADSMERSLS PEPFILUS TRIACANTHUS CITHARICH THYS A RCTIEPPONS HIPPOGLOSSINA OR UN CUS ACOLTIONAL LARVAE CAUCHT	0 831 22 2.9 2.0- 4.5 NL 2 2 5.6 4.8- 6.4 NL 22 1 1 5.0 SL 63 25 5.5 4.2-10.1 SL 15 13 4.4 3.4- 5.0 SL	4 4 6.5 4.5-8.9 TL 155 41 2.5 1.5-4.9 SL 6 966 30 2.6 1.2-4.2 NL 103 96 4.1 2.0-11.0 NL 23 1 1 2.4 TL  183 25 5.7 4.2-12.1 SL 47 45 4.6 3.2-6.5 SL  DPHIDIDAE	1.3 51.7 2.0 511.2 34.9 0.3 0.3 19.9 20.2
	STRCMATEIC#E UNIDENTIFIED	STRCMATEICAE UNIDENTIFIEC	
P 6 14 09 PISCODNOPHIS CPUENTIFER LOPHIJS AMERICANUS ENCHELYDPUS CIMBRAUS UROPHYCIS SP. UFOFHYCIS CHUSS MERIUGCIUS BILINFAPIS C IT FARICHTHYS ARCITERONS HIPFORICSSINA OBLUNCUS ADDITIONAL LARVAE CAUGHT	CPHIDIIC/E	SAMPLING CEPTH 18-33M 1 1 41.5 6 6 7.8 5.3-13.3 TL 24 23 3.6 2.5- 6.1 SL 9 136 32 3.6 2.2- 5.2 NL 9 9 4.4 2.3- 6.9 NL 39 38 6.6 5.1- 7.8 NL 29 29 8.1 4.6-11.7 SL 7 7 6.0 4.6- 7.5 SL PISODDNDPHIS CRUENTIFER DPHIOTIGAE	0.3 3.8 8.9 3.6 £1.9 3.0 16.6 10.6 2.9
P 7 14 09 LCPHIUS AMERICANUS HROMHYCIS SP. MFRIUCCIUS BILINEARIS CITHARICHTHYS ARCHIFPENS ADDITIDNAL LARVAE CAUGHT		SAMPLING CEPTH 18-33M 1 1 3.6 TL 64 17 5.C 3.7-1C.1 NL 53 51 12.1 6.5-41.1 NL 0 11 11 6.C 5.5-15.2 SL SYNDDONTICAE DPHIOLICAE	0.9 42.6 20.7 4.0
C t 17 D9 FNG PAULIS EURYSTOLF UFOTHYCIS SP. MEPLUCCIUS BLILNEARIS PEPPLUS TRIACANTHUS PELCHOTUS CARCLINAS CITHARICH THYS ARCHIERONS ETROPUS MICROSTOMAS SCOPHTHALMUS ADDISUS ADDITIONAL LARVAE CAUGHT	SAMPLINC OEP TH		0.7 6.4 0.7 0.2 2.9 0.2 0.2

TABLE 3. (continued)	120		
CRUISE DATE  06611 1966  STA. 0 M SPECIES ANALYZED  C 2 IT 09  ENGRAULIS EURYSTOLE  UPCFHYCIS SP.  MPOLUCCIUS RILINEARIS  TAUTOGA ONITIS  PET (NOTUS CARTINUS  CITHARICH THYS ARCTIFRONS  PARALICHTYS ERNTATUS	NUMBEF LENGTHS (MM) NO.  TOTAL METS. MEAN RANCE MEAS. EGGS  SAMPLINC DEPTH 0-15M  5 5 6.3 3.0-18.1 TL  34 7 2.3 1.2-4.5 NL  5 3 2.7 2.6-2.8 NL  6 4 3.0 2.6-3.7 TL  7 7 6.3 5.3-7.2 SL  1 0	**************************************	NC. PER 10 M LARVAE FGG S 1.5 10.3 1.5 0.0 1.2 0.6 2.1 0.3 C.C
HIPPOSEOS SINA OBLANCUS SCOPHT HALMIS ADUDISUS	3 3 2.9 2.7- 3.2 SL 1 2.7 SL		0.9
ADDITIONAL LARVAE CAUGHT	OUTDEALESTED		
(3 17.29	SAMPLING DEPTH C-15M	SAMPLING CEPTH 18-24M	
ENGRAULIS FURYSTOLE ENCHELYOPUS CIMBRIUS	2 2 12.0 8.6-15.4 TL	1 1 6.7 TL 1 1 5.7 SL 0	0.8 0.2 C.C
UFOFHYCIS SP.	B7 24 4.2 2.0- E.2 NL	57 22 3.C 1.5- 7.0 NL	35.9 0.0 [8.]
MERLUCCIUS BILINEARIS TAUTOGOLA ERUS AOSMERSUS	1 1 5.2 TL	· ·	0.3
PEPRILUS TRIACANTHUS PRICNOTUS CAROLINUS	1 1 3.4 St 2 2 3.5 3.5 3.5 St	4 4 3.8 3.5- 4.3 SL	0.3 1.3
CIT HARICH THYS ARCFI FRONS ETROPUS MICROSTOMUS	14 14 7.7 5.7-13.7 St	4 4 1C.1 7.4-11.7 SL 2 2 8.7 5.7-11.7 SL	4.9 0.3
PARALICHTHYS CENTATUS HIPPD3 LOS SINA ⊃8LNN CUS	0	4 4 3.3 3.2- 3.4 St 0 1 1 2.3 SL	0.6 0.C 0.2
SCOPHTHALMUS ADUDNUS A COETTONAL LA RVAE CAUGHT	I I 2.8 SL	UNIOENTIFIED	0.3
C 4 17 09	SAMPLING DEPTH 0-15M	SAMPLING DEFTH 18-33 P	
PISCONOPHIS CRUENTIFFR ENCHFLYOPUS CIMBRIUS	0	1 1 55.C TL 23 23 4.7 2.9- 7.2 SL 0	0.3 7.7 0.0
UPOPHYCIS SP. MER LUCCIUS BILINE AR IS	622 34 3.3 1.7- 5.1 NL 1 1 4.4 NL 8	929 32 3.6 1.6+ 6.8 NL 312 300 4.2 2.3-10.3 NL 4	496.2 1(4.3 3.7
PEPFILUS TRIACANTHUS PRICHDIUS CAROLINUS	44 44 2.9 2.0- 3.8 SL	2 2 2.9 2.4- 3.4 SL 2 2 3.0 2.7- 3.4 SL	14 • 7 0 • 7
CITEARICHTHYS ARCTIFRONS	€1 25 6.1 3.7-11.5 SL	398 25 5.9 3.7- 9.3 SL	151.0
PARALICHTHYS DENTATES FIPFOGLOSSINA DRLANCUS	11 11 4.4 3.2- 7.0 SL	1 1 4.5 SL 0 4 4 5.5 4.5- 6.7 SL	4.€
SCCENTHALMUS ADUNSUS ADDITIONAL LARVAE CAUGH		UNI DENT LE LE L	3.7
	STROMATEIEAE		
C 5 17 09	SAMPLING DEPTH C-15M	SAMPLING CEFT+ 18-33M	
ENGRAULIS EUPYSTOLE ENCHELYOPUS CIMBRIUS	2 2 12.8 12.1-13.5 TL	1 1 12.5 TL 20 20 5.1 3.7- 7.8 SL 0	0.9 6.7 C.C
UFOFHYCIS SP.	1315 4C 3.3 1.9- 5.8 NL	125 28 4.0 2.1- 7.5 NL	438.3
MERLUSCIUS BILINEARIS PEPFILUS TRIACANTHUS	8 7 3.0 2.5- 4.5 NL 16 6 6 5.9 2.9-17.8 SL	157 157 6.9 2.8-11.5 NL 1	2.0
C THARTCH THYS ARCTIFRONS HIPPOGLOSSINA ORLHINGUS	100 25 6.7 4.5-13.2 SL 39 37 4.5 2.5-6.0 SL	57 25 7.0 4.3-11.7 SL 7 7 5.6 4.3- 7.0 SL	€2 •3 14•0
SCCFHTHALMUS ZOUDNUS GLYPTOCEPHALUS CYNOGLOSSUS	1 1 3.2 SL	2 2 21.5 18.7-24.2 St	0 .3 0.7
A CO IT TO NAI LARVAE CAUGHT	DPHIDIIOAE STROMATIICAE	DPHIOIIDAE STROMATEIEAE	
	LNIDENTIFIED		
C 6 17 G9 LEFFIUS AMERICANUS	SAMPLING DEPTH C-15M	SAMPLING CEPTH 16-22M 4 4 6.8 4.1-8.2 TL	1.3
FNCHELYOPLS CIMBRILS UFDFHYCIS SP.	0 1625 35 3.6 2.0- 5.5 NL	58  26  4.3  2.2- 1.5  SL	19.3 0.3 £(7.8
MERLUCCIUS BILINFARIS PEPRILUS TRIACANTHUS	1 1 3.0 St	208 207 5.6 2.1-15.5 NL 23	69.3 7.7 0.3
CITEARICH THYS ARCTIFRONS HIPPOSECS SINA DREWNGES	170 25 5.4 3.1~13.6 St 23 22 5.1 2.9~6.9 St	639 25 5.5 3.2-14.2 St 8 8 5.4 4.1- 6.2 St	2 64 .0 9 .6
LIMANDA FERRUCINEA A DOLTTONAL LARVAE CAUGHI	CPHIDIIC#E	2 2 13.7 12.7-14.7 SL	0.7
	STROMATEICAE UNICENTIFIED		
C 7 17 09	SAMPLING DEPTH C-15M	SAMPLING CEPTH 18-33M	
ENGRAULIS EURYSTOLE LOPHIUS AMERICANUS	2 2 12.9 12.5-13.3 TL 4 8.4 3.9-13.9 TL	1 1 14.1 TL 10 10 6.1 3.7- 5.9 TL	0.9 4.5
ENCHELY OPUS CIMBPIUS UPO PHYCIS SP.	1 1 2.5 SL 0 965 26 2.9 1.2- 4.9 NL	28 27 3.4 1.6-5.6 St. 0 687 28 3.9 2.2-6.8 NL	9.6 0.C 518.4
MERLUCCIUS BILINEARIS Alxis Sp.	13 12 12.3 3.1-22.5 NL 0 1 1 13.5 SL	351 345 8.5 3.1-32.8 NL 0	120.9 0.C 0.3
PEPPILUS TRIACANTHUS RCTHUS DOELLATUS	1 1 8.2 SL 1 1 15.4 SL		0.3 0.3
CITHARICH THYS ARITIFRONS MENELENE SESSILICAUTA	13 12 6.9 2.2-13.6 SL	137 25 7.9 2.6-14.7 SL	49.6
HIPFOGLESSENA DOLLINGUS	1 1 19.3 SL 33 33 5.1 2.7- 7.5 SL	22 22 4.7 2.7- 6.4 SL 1 1 18.2 SL	17.2
SUZZEJANY Z ZANA PODETRYJA FIJUA – JAVRI I JADA	OPHIDITEAE	1 1 18.2 SL OPHIDITAE	0.5

TABLE | atimued) NUMBER LENGTHS (MM) ND.
TOTAL MEAS. MEAN RANGE MEAS. EGGS \*\*\*\*\*\*\*\*\* [ ARVAE \*\*\*\*\*\*\*\* CRUISE DATE NO. PER 10M C-6) 1 1956 STA. 7 4 SOF(LES ANALYZEC C 8 17 09 NUMPER LENGTHS (MM) NC. TOTAL MEAS. MEAN RANCE MEAS. FGGS SAMPLING DEPTH 0-15M LAFVAE EGGS SAMPLING CEPTH LE- 33M PIS COUNTREES COUENT IF ER 1 1 29.9 0.3 CEPATOSCOPPLLS MADEFENSIS OTAPHUS SP. LEFTUS AMERICANUS SL 0.3 4 4 E.9 7.9- 9.7 SL TL 0.3 3.6 2.0- 5.1 NL 8.2 7.9- 8.6 NL 137 2.8 4.9 3.8- 6.C NL .2 .6 HERIUCCIUS BILINEAR IS 9.4-10.0 NL 0 1.3 0.0 PEPRILUS TREACANTAILS
CITHARICHTHYS ARCFIFPONS
HIDENGLOSSINA OBLUNCUS 35.0 SL 0.3 10 7.9 5.3-12.3 SL 11 4.0 10.0 5.6 4.2- 6.6 SL SCHENTHALMUS ADUNCE 0.3 ADDIT 10NAL LARVAE CAUGHT OPHIOLICAE CPHIOLIDAE CALL TONYPICAE GORILDAE UNIDENTIFIED C 1 13 09
FACFAULIS EURYSTALE
FACFFLYADES CIMBRUS
HECFHYATS OR.
CENTRARRISTS STRIATA
PERRILUS TRIACANTHUS SAMPLING CEPTH 1.7- E.6 TL 4.5 £2 i 0.1 0.G SL 3.5 1 5.4 51 0.1 4.0 3.0~ 5.3 SL 0.4 PRICHOTUS CARCLINUS
CITHARICH THYS ARCHIEPENS
HIPPOGLOSSINA DRINGUS 2.2- 3.8 SL 13.5 5.2 ST 0.1 3.4 3.1- 3.7 SL 1.1 SCORNTH M MUS AQUONUS A DOLT TOWAR LARVAS CAUGHT STROMATETERS UNIDENTIFIED . 2 19 39
FNGFAULTS FURYSTOLF
UROPHYCIS SP.
MERIUCCIUS BILINEARIS SAMPLING DEPTH C- 64 47 47 4.2 1.7- 6.5 TL 14 IC 2.3 1.4- 2.8 NL 1.7 3.6 NL 1 PPICNOTUS CAPCLINUS 3.8 2.7- 5.0 SL 2.2 PPECNOTUS CAPELINUS CITEARICHTHYS ARCTIFRONS HIPPOGLOSSINA NOLUNGUS 5.1 SL 2.6 2.4- 2.7 SL 0.1 SCHPHTHAL MUS ADUDSUS 2.2- 3.7 SL 0.8 2.9 ADDITIONAL LARVAE CAUGHT UNIDENTIFIED G DEP TH C-15M 9 4.9 2.2- 7.2 TL 22 2.0 1.2- 4.0 NL 5 2.8 2.2 T 3 TO NO FURYSTOLE SAMPLING DEP TH MEDFACTO WALLINEARTS 137 41.5 2.2- 4.0 NL 0 2.1 0.0 D.3 PEPELUS TRIACANTHIS t 4.0 SL 3.6- 3.9 SL 0.6 3.7 PRICHITUS CAPCLINHS 1.4- 2.9 SL 1.8 2.7- 2.9 SL 3.3- 3.6 SL CITEAR ICHTHYS ARCTIFRONS PARALICHTHYS FENTATES HIPPOGLOSSINA OBLUNCES 0.6 2.8 0.0 3.5 G 3.2- 3.8 SL 1.2 SCCENTHALMUS AQUINUS 4 4
ADDITIONAL LARVAE CAUCHT SYNGNATHICEE 2.5- 2.9 SL 1.2 STROMATEICAE UNIDENTIFIED SAMPLING DEPTH 0-15 M 30 25 6.2 2.9-22.5 TL 2 2 2.3 2.2-2.3 SL F 4 13 09 ENGRAULIS EURYSTOLE SAMPLING [EPTH 18-24M 1 12.1 9.7 1 2.3 SL 2.3 1.5- 3.2 NL FACEFLYOPES CIMBRIUS 0 0.8 0.0 3.3 2.1- 6.0 NL 3.4 2.6- 4.2 NL 5.0 3.4-11.3 SL 25.6 UFORHYCIS SP.
MERIUTCIUS BILLINEARIS 2.5 1.5- 3.2 NL 2.8 2.2- 4.2 NL 3.2 2.1- 3.9 SL 3.0 2.5- 4.0 SL 5.3 3.7- 5.9 SL 3.2 2.9- 3.6 SL 0.0 0 12 11 1.1 11 PEPRILLIS TRIACANTHIJS 2.5 6 5.9 PETINOTUS CARCLINUS CITEATICHTHYS ARCFIERONS PERALICHTHYS CENTATUS 17 17 2.9 1.9- 4.1 SL 4 3.5 3.1 - 4.8 SL 15 13 11 0 0.6 0.0 1 3.4 3.6 2.5- 7.6 SL HIPPOSICSSINA ORIANGES 30 27
SCCENTHALMIS AQUINUS 4 4
ACOLTINNAL LARVAE CAUCHT UNIDENTIFIED 1 2.5 9.7 3 St 3.7 2.6- 5.4 SL 2.9 2.7- 3.3 SL UNIDENTIFIED

TABLE 3. (continued)																	
CRUISE DATE			+ LAR	AE **	****			*****	****	+ LARV	AF **						2
D6611 1966	NU M			NGTHS			NO.	NUM			NG TH			ND.		NO. PER	
STA. D. M. SPECIES ANALYZED	TOTAL	MERS.	MEAN	RAN	CE	MEAS .	EGCS	T CT AL					MEAS.	• EGG	S	LARVAE	EGG S
r 5 18 09	SAMPL II	V€ DEF						SAMPLI	NG CEI	PTH 1	8-331	1					
ENGRAULIS FURYSTOLF	14	14	8.2		16.3											4.7	
ENCHELYOPUS CIMBRIUS	4	2	2.5		2.7		6	14	14	3.8	2.5-				0	5.9	2.C
UFCFHYCIS SP.	704	33	3.5		6.4			179	31		1.9-				0	2 70 .8 12 . 8	٦٠)
MERLUCCIUS BILINEAR IS	25 1	22	3.8 6.7	2.6-	5.9	SL	0	136	130	4.5	2 .6-	11.2	NE		U	0.3	(. (
PEMATOMUS SALTATRIX TAUTOGOLABRUS ADSPERSUS	2	2	7.2	5 0-	9.5			4	4	5 . C	0 . E-		T1			1.9	
PEPETLUS TRIACANTHUS	23	22	4.6		12.5			2	2	4.1	3.1-					7.7	
PRIENDTUS CAPEL THUS	28	28	4.1		7.5			3	3	4.3		5.3				9 .4	
CITEAR ICH THYS ARGITERENS	10	10	6.6	3.4-	11.2	SL		16	1 €	6.C	3 . 7-	10.4	SL			8.3	
ETRIPUS MICROSTOMIS	9	А	6.2	4.6-	9.2	St.		2	2	6.4	5 .6-	7.1	St			3 .4	
PARALICHTHYS CENTATES	6	6	4.3	3 - 2-	5.1	SL	0								0	2.0	0.0
HIP FOGLOS SIN A DIBLUNICUS	49	45	4.8		6.8			18	18		3.5-	9.A				20.7	
SCOPHITHAL PUS ADUDAUS	10	9	3.8	3.4-	4.2	SL		1	1	3.5			St			3.3	
ADDITIONAL LARVAE CAUGH			_														
	STROMA																
	UNIDEN																
				• •										• •	• •		
0 6 19 09	SAMPL [	C DE	ртн б	1-15M				SAMPL 1	NG DEI	PTH 1	P- 334						
PISCOONOPHIS CRUENTIFER	1		53.4			ΤŁ		3 4 2 .	10 00.	•	. ,,,					0.3	
ENGRAULIS EURYSTOLF	9	9	13.2	10.8-	16.5	T1		1	1	11.6			TL			3 .0	
LOPFIUS AMERICANUS								1 1	11	5.7		9.4				3.7	
ENCHELYOPUS CIMBRAUS	4	3	4.7		8.5		0	11	8	5.0		- 8.9			Ú	4.9	0.0
UPOFHYCIS SP.	759	30	4.4		7.1			191	30	4.6		11.2				251.3	
MERLUCCIUS BILINEAR IS	22	22	6. C		A. 8		0	372		5.5		12.2			0	120.6	C. C
PEFFILUS TRIACANTHUS	5	5	2.9		3.0			2	2 2 5	2.9 6.6		- 3.3 -11.9				2 •2 77 • 3	
CITEAR ICH THYS ARCTIFRONS	151	25	5.9		9.4			96								9.1	
	1.0	1.0	1. 4	2 1	4 0												
HIFFOGLESSINA DALANGUS	18	18	4.6	3.1-	6.8	S£		11	11	5.3	4 .4-	- 5 . R					
H 1F FOGLES SINA O BLONGUS G LYFTOEFPHALUS CYNCELDSSUS		-	4.6	3.1-	6.8	SL		1	1	32.1	4 .4-	- 5 • R	SL			0.3	
HIFFOGLESSINA DALANGUS		-	4.6	3.1-	6.8	SL		1 CPH 1 CH	1 THICA	32.1	4 .4-	- 5 • R					
H 1F FOGLES SINA O BLONGUS G LYFTOEFPHALUS CYNCELDSSUS		-	4.6	3.1-	6.8	SL		1	1 THICA IDAE	32.1 E		- 5 • R					
H 1F FOGLES SINA O BLONGUS G LYFTOEFPHALUS CYNCELDSSUS		LOAF				st.		1 CPH1CH OPH1D1	1 THICA IDAE	32.1 E		- 5 . R					
HIPPOGLESSINA DREAN CUS GLYPTOCEPHALLS CYNCELOSSUS ADDIT DNAI LARVAE CAUGH	IOIHQO T	I D AF						I CPHICH OPHIDI LABRIC	THICA IDAE AE OR	32.1 E SCARI	CAE						
HIPPOGLESSINA DALON CUS GLYPTOGEPHALLS CYNCCLOSSUS ADDIT ENAL LARVAE CAUGH	T OPHIOI:	IDAF	•• PTH (					1 CPH1CH OPH1D1	THICA IDAE AE OR	32.1 E SCARI	CAE					0.3	
HIPPOGLESSINA DALAN CUS GLYFTODEPHALUS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 18 C9 ENGRAULIS FURYSTOFF	IOIHQO T	IDAF						I CPHICH OPHIDI LABRIC	THICA IDAE IDAE OR AE OR	32.1 E SCARE	CA E • • • • • • • • • • • • • • • • • • •					0.3	
HIPPOGLESSINA DREDNEUS GLYFTOEPHALLS CYNCELOSSUS ADDIT DNAI LARVAE CAUGH  0 7 19 69 ENGRAULIS FURYSTOIF LEFFIJS AMERICANUS	T OPHIOI	IDAF	••• РТН ( 19.6					I CPHICH OPHIDI LABRIC SAMPLI	THICA IDAE AE OR 	3 2 . 1 E SCARE PTH 1	EA E 			• •		0.3	0.3
HIPPOGLESSINA DREDVEUS GLYPTOCEPHALLS CYNCOLOSSUS ADDIT DINAL LARVAE CAUGH  D 7 IR C9 ENGRAULIS FURYSTOLF LEPHIJS AMERICANUS ENCHELYPPUS CIMBRIUS	T OPHIDI:	IDAF	PTH (19.6	· · ·		 TL SL		CPHICH OPHIDI LABRID SAMPLI	THICA IDAE AE OR  NG DE	32.1 E SCARI PTH 1	EA E 	4 8.1	5 L	• •	ι.	0.3 1.7 5.3	0.3
HIPPOGLICISINA DALAN CUS GLYFTOCEPHALUS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  D 7 IR C9 ENGRAULIS FURYSTOIF LIPPIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SP.	T OPHIDI  SAMPLI  1 470	IDAF	PTH ( 19.6 2.6 3.8	· · ·		TL SL NL		CPHICH OPHIDI LABRID SAMPLI	THICA IDAE AE OR  NG DE	32.1 E SCARI PTH 1 6.7 2.6 4.5	EA E	9.1 - 5.8 - 8.0	* · · ·			0.3 1.7 5.3 164.7	0.3
HIPPOGLICS SINA DREAN CUS GLYFTOCEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIPPIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILLINEARIS	T OPHIOI  SAMPLI  1 470	IDAF	PTH (19.6) 2.6 3.8 8.8	)-15M		TL SL NL NL		CPHICH OPHIDI LABRID SAMPLI	THICA IDAE AE OR  NG DE	32.1 E SCARI PTH 1	EA E 	9.1 - 5.8 - 8.0	* · · ·			0.3 1.7 5.3	
HIPPOGLICISINA DALAN CUS GLYFTOCEPHALUS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  D 7 IR C9 ENGRAULIS FURYSTOIF LIPPIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SP.	T OPHIDI  SAMPLI  1 470	I CAF	PTH ( 19.6 2.6 3.8	1.5- 2.7-	- 4.9	TL SL NL NL St		CPHICH OPHIDI LABRID SAMPLI	THICA IDAE AE OR  NG DE	32.1 E SCARI PTH 1 6.7 2.6 4.5	EA E	4 8 . 1 - 5 . 8 - 2 . 0 . 2	TL SL NL NL			0.3 0.3 1.7 5.3 164.7 20.6	
HIPPOGLESSINA DREDVEUS GLYFTOEPHALLS CYNCELOSSUS ADDIT DNAI LARVAE CAUGH  D 7 IR C9 ENGRAULIS EURYSTOFF LEFFIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SO MERIUCCIUS BILLNEARIS PEPPILUS IRLACANTHUS	T OPHIOI   SAMPLI  1  470  1  2	10AF	PTH (19.6 2.6 3.8 8.8 3.1	1.5- 2.7- 2.8-	- 4.9 - 3.5	TL SL NL NL SL SL SL		CPHICH OPHICI LABRIC	THICA IDAE AE OR  NG DE	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0	CA E	4 8 . 1 - 5 . 8 - 2 . 0 . 2	St.  TL SL NL NL NL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIFFOGLOSSINA ORLAN CUS GLYFTOEFPHALUS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIFFILIS AMERICANUS ENCHELYPPLS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEAR IS PEPPILUS IRIACANTHUS CIT FAPILCHTHYS APCITERONS HIFFOGLOSSINA OBLANCUS GLYPTOEFP FALUS CYNOGLOSSUS	7 OPHIO1  SAMPLI 1 470 1 2 86	IDAF  NC CE  1 1 1 1 2 2 3	PTH (19.6 2.6 3.8 8.8 3.1 5.3	1.5- 2.7- 2.8-	- 4.9 - 3.5 - 8.2	TL SL NL NL SL SL SL		CPHICH OPHIDI LABRID SAMPLI	1 THICA IDAE AE OR  NG DEI 5 15 61 25 16	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0	CA E	8.1 - 5.8 - 2.0 -10.2	St.  TL SL NL NL NL			0.3 1.7 5.3 164.7 20.6 0.7 51.5	
HIPPOGLICS SINA DREAN CUS GLYFTOLEPHALL'S CYNCOLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOLF LIPPIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILLINEARIS PEPPILUS IRIACANTHUS CITHAPICHTHYS APCHIFRONS HIPPOGLOSSINA DBLANCUS	T OPHIOI  SAMPLI  1 470 1 2 86 4	IDAF  NC CE 1 19 19 12 25 3	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5	1.5- 2.7- 2.8-	- 4.9 - 3.5 - 8.2	TL SL NL NL SL SL SL		CPHICH OPHICI LABRIC SAMPLI	1 THICA IDAE AE OR  NG DEI 5 15 61 25 16	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0	CA E	8.1 - 5.8 - 2.0 -10.2	TL SL NL NL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIFFOGLOSSINA ORLAN CUS GLYFTOEFPHALUS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIFFILIS AMERICANUS ENCHELYPPLS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEAR IS PEPPILUS IRIACANTHUS CIT FAPILCHTHYS APCITERONS HIFFOGLOSSINA OBLANCUS GLYPTOEFP FALUS CYNOGLOSSUS	7 OPHIO1  SAMPLI 1 470 1 2 86	IDAF  NC CE 1 19 19 12 25 3	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5	1.5- 2.7- 2.8-	- 4.9 - 3.5 - 8.2	TL SL NL NL SL SL SL		CPHICH OPHIDI LABRID SAMPLI	1 THICA IDAE AE OR  NG DEI 5 15 61 25 16	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0	CA E	8.1 - 5.8 - 2.0 -10.2	TL SL NL NL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIFFOGLOSSINA ORLAN CUS GLYFTOEFPHALUS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIFFILIS AMERICANUS ENCHELYPPLS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEAR IS PEPPILUS IRIACANTHUS CIT FAPILCHTHYS APCITERONS HIFFOGLOSSINA OBLANCUS GLYPTOEFP FALUS CYNOGLOSSUS	T OPHIOI  SAMPLI  1 470 1 2 86 4	IDAF  NC CE 1 19 19 12 25 3	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5	1.5- 2.7- 2.8-	- 4.9 - 3.5 - 8.2	TL SL NL NL SL SL SL		CPHICH CPHICH CPHICH LABRIC SAMPLI	1 THICA IDAE AE OR  NG DEI 5 15 61 25 16	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0	CA E	8.1 - 5.8 - 2.0 -10.2	TL SL NL NL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIPPOGLESSINA DREAN CUS GLYFTOEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LEPFILIS AMERICANUS ENCHELYOPLS CIMBRIUS UROPHYCIS SP. MERIUCCTUS RILINEAR IS PEPPILUS IRLACANTHUS CITEAPICHTHYS APCIFFRONS HIPPOGLOSSINA OBLANCUS GLYPTOCEPHALES CYNOGLOSSUS ADDITIONAL LARVAE CAUGH	T OPHIDI  SAMPLI  1 470 1 2 86 4 T OPHIDI UNIDEN	ICAF  L L L L L L L L L L L L L L L L L L	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5	1.5- 2.7- 2.8- 2.9-	- 4.9 - 3.5 - 8.2	TL SL NL NL SL SL SL		CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	1 THIEA IDAE AE OR	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0 10.3 5.3 15.4	CA E 6- 23! 4.6- 2.4- 2.2- 3.5- 4.8- 2.9-	8.1 - 5.8 - 6.0 -10.2	TL SL NL NL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIPPOGLICISINA DREMIUS GLYFTOLEPHALLS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIPPIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILLINEAR IS PEPPILUS IRLACANTHUS CIT PAPICHTHYS APSITERONS HIPPOGLOSSINA DBLANCUS GLYPTOLEPHALLS CYMOGLOSSUS ADDITIONAL LARVAE CAUCH	T OPHIOI  SAMPLI  1 470 1 2 86 4  T OPHIOI UNIDEN  SAMPLI  SAMPLI	IDAF	PTH (19.6 2.6 3.8 8.8 8.3 -1 5.3 3.5	1.5- 2.7- 2.8- 2.9-	- 4.9 - 3.5 - 8.2 - 4.5	TL SL NL NL SL SL SL SL		CPHICH CPHICH CPHICH LABRIC SAMPLI	1 THICA IDAE AE OR	32.1 E SCARI  2.6 4.5 7.0 10.3 5.3 15.4	CA E 6- 33N 4 .6- 2 .4- 2 .2- 3 .5- 4 .8- 2 .9-	8.1 - 5.8 - 2.0 -10.2	TL SL NL NL SL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIFFOGLESSINA ORLEN CUS GLYFTOEFPHALL'S CYNCCLOSSUS ADDIT DNAL LARVAE CAUGH  O 7 IR C9 ENGRAULIS FURYSTOLF LEFFLIS AMERICANUS ENCHELYPPIS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILLINEAR IS PEPPILUS TRIACANTHUS CITHAPICHTHYS APCILIFRONS HIFFOGLOSSINA OBLANGUS GLYPTOEPHALE'S CYNGGLOSSUS ADDITIONAL LARVAE CAUGH  O A IR OP CERATOSCOPELUS MADERFNSIS	T OPHIDI  SAMPLI  1 470 1 2 86 4 T OPHIDI UNIDEN	ICAF  L L L L L L L L L L L L L L L L L L	PTH (19.6 2.6 3.8 8.8 8.3 -1 5.3 3.5	1.5- 2.7- 2.8- 2.9-	- 4.9 - 3.5 - 8.2 - 4.5	TL SL NL NL SL SL SL SL		CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	1 THICA IDAE AE OR	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0 10.3 5.3 15.4	CAE	8.1 - 5.8 - 2.0 -10.2	TL SL NL NL SL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5	
HIPPOGLICISINA DREMIUS GLYFTOLEPHALLS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIPPIJS AMERICANUS ENCHELYPPUS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILLINEAR IS PEPPILUS IRLACANTHUS CIT PAPICHTHYS APSITERONS HIPPOGLOSSINA DBLANCUS GLYPTOLEPHALLS CYMOGLOSSUS ADDITIONAL LARVAE CAUCH	T OPHIOI  SAMPLI  1 470 1 2 86 4  T OPHIOI UNIDEN  SAMPLI  SAMPLI	IDAF	PTH (19.6 2.6 3.8 8.8 8.3 -1 5.3 3.5	1.5- 2.7- 2.8- 2.9-	- 4.9 - 3.5 - 8.2 - 4.5	TL SL NL NL SL SL SL SL		CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	1 THICA IDAE AE OR	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0 10.3 5.3 15.4	EA E	8.1 - 5.6 - 6.0 -10.2 - 14.0 - 6.3	TL SL NL NL SL SL SL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3	
HIPPOGLICISINA DREAN CUS GLYFTOEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  O 7 IR C9 ENGRAULIS FURYSTOIF LIPPIJS AMERICANUS ENCHELYOPLS CIMBRIUS UROPHYCIS SO. MERIUCCTUS RILINEAR IS PEPPILUS TRIACANTHUS CITHAPICHTHYS APCLIFRONS HIPPOGLOSSINA OBUNICUS GLYPTOCEPHALE'S CYNOGLOSSUS ADDITIONAI LARVAE CAUCH  O A IR O9 CERATOSCOPELUS MADERENSIS LICPHIUS AMERICANIS	T OPHIOI  SAMPLI  1 470 1 2 86 4  T OPHIOI UNIDEN  SAMPLI  SAMPLI	IDAF	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5	1.5- 2.7- 2.8- 2.9-	- 4.9 - 3.5 - 8.2 - 4.5	SL SL SL SL	0	I CPHICH OPHIDI LABRIC SAMPLI 5 15 71 61 77 16 0PHIDI	THICA IDAE AE OR  NG DE-  NG DE- 15 61 25 16 11 DAE  NG DE- 4 8 31	32.1 E SCARI  PTH 1 6.7 2.6 4.5 7.0 10.3 15.4	EA E	8.1 - 5.8 - 6.3 - 14.0 - 6.3	TL SL NL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3	0.0
HIPPOGLESSINA DALAN CUS GLYFTOEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  O 7 IR C9 ENGRAULIS FURYSTOIF LEPFILS AMERICANUS ENCHELYOPLS CIMBRIUS UROPHYCIS SO. MERIUCCIUS RILINEARIS PEPPILUS TRIACANTHUS CITEAPICHTHYS APCIFRONS HIPPOGLOSSINA DBUNCUS GLYPTOCEPHALE'S CYNOGLOSSUS ADDITIONAL LARVAE CAUCH  O A IR O9 CERATOSCOPELUS MADERENSIS LEPHIUS AMERICANIS ENCHELYOPLS CIMBRIUS UFFORYCIS SP.	T OPHIDI  SAMPLI  1 470 1 286 4  IT OPHIDI UNIDEN SAMPLI 2	L L L L L L L L L L L L L L L L L L L	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5 D	1.5- 2.7- 2.8- 2.9-	- 4.9 - 3.5 - 8.2 - 4.5	TL SL NL SL SL SL SL SL	0	CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	1 THICA IDAE	32.1 E SCARI 	EA E	8.14 - 5.8 - 5.8 - 6.0 - 6.3	TL SL NL SL		0	0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3	0.0
HIPFOGLESSINA DREAN CUS GLYFTOEPHALLS CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LEPHIJS AMERICANUS ENCHELYOPES CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEAR IS PEPPILUS IRLACANTHUS CITHAPICHTHYS APSITERONS HIPFOGLOSSINA OBLANCUS GLYPTICEPHALES CYNOGLOSSUS ADDITIONAL LARVAE CAUGH  0 A IR 09 CERATOSCOPELUS MADERENSIS LEPHIUS AMERICANUS ENCHELYOPES CEMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEARIS PEPRILUS TRIACANTHUS	T OPHIDI  SAMPLI  1 470 1 2 86 4  T OPHIDI UNIDEN SAMPLI 2 87	LIDAF  NC CE 1 19 19 11 2 2 3 11 11 11 2 2 2 2 2 2 11 11 11 11 11 11	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5 D	1.5- 2.7- 2.8- 2.9- 2.9-	4.9 3.5 8.2 4.5	TL SL NL NL SL SL SL SL SL	0	CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	11 TATICA 11 DAE AE OR 	32.1 E SCARI. 	E- 231 4.6- 2.4- 2.2- 3.5- 4.8- 2.9- 8-331 8.8- 4.8- 2.7- 2.5- 6.5-	8.1 - 5.8 - 5.8 - 6.2 - 6.3 - 8.1 - 8.5 - 7.0 - 9.5 - 9.5 - 9.5	TL SL NL NL SL SL SL NL NL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3	0.0
HIFFOGLOSSINA ORLONOUS GLYFTOEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  O 7 IR C9 ENGRAULIS EURYSTOIF LOFFLIJS AMERICANUS ENCHELYPPLS CIMBRIUS UROPHYCIS SP. MERIUCCTUS BILLNEAR IS PEPPILUS TRIACANTHUS CIT FAPICHTHYS APCITFRONS HIFFOGLOSSINA OBLANCUS GLYPTOEPHALES CYNGGLOSSUS ADDITIONAL LARVAF CAUCH  O A IR OP CERATOSCOPELUS MADERENSIS LOFHIUS AMERICANIS ENCHELYOPUS CYMBRIUS UROFHYCIS SP. MERIUCCIUS BILINGARIS PEPRILUS TRIACANTHUS CITHARICHTHYS ARCITERENS	T OPHIOI  SAMPLI  1 470 1 2 86 4 IT OPHIOI UNIDEN SAMPLI 2 87	L L L L L L L L L L L L L L L L L L L	PTH (19.6 2.6 3.8 8.8 8.3 3.1 5.3 3.5 D	1.5- 2.7- 2.8- 2.9- 3.0- 3.0-	4.9 3.5 8.2 4.5 9.0	TL SL NL NL SL SL SL SL SL	0	T CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	THICA IDAE AE OR  NG DE-  NG DE- 15 61 25 16 11 DAE  NG DE- 7 4 8 8 31 55	32.1 E SCARI  2.6 4.5 7.0 10.3 5.3 15.4  PTH 1 10.9 5.7 2.6 8.1	EA E	44.0.2 -5.8 -6.3 -13.8 -7.6 -9.5 -12.7	TL SL NL NL SL SL SL NL NL SL SL NL NL SL SL NL NL SL SL NL NL SL SL SL NL NL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3 2.9 1.3 2.7 60.4 18.7 0.3 14.1	0.0
HIPPOGLESSINA DALAN CUS GLYFTOEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  O 7 IR CO ENGRAULIS FURYSTOIF LEPFILS AMERICANUS ENCHELYOPLS CIMBRIUS UROPHYCIS SO. MERIUCCIUS RILINEARIS PEPPILUS TRIACANTHUS CIT PAPICHTHYS APCIIFRONS HIPPOGLOSSINA DRUNNCUS GLYPTOEPHALE'S CYNODUSSUS ADDITIONAL LARVAE CAUCH  O A IR OO CERATOSCOPPELUS MADERENSIS LEPHIUS AMERICANIS ENCHELYOPUS CIMBRIUS HIPOTENSENA	T OPHIDI  SAMPLI  1 470 1 2 86 4  OF OPHIDI UNIDEN SAMPLI 2 87 1 27 4	LIDAF  LIAR LIAR LIAR LIAR LIAR LIAR LIAR LIA	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5 D PTH (18.5)	1.5- 2.7- 2.8- 2.9- 3.0- 3.0- 3.2-	4.9 3.52 8.22 4.5 9.0 9.5	TL SL NL SL SL SL SL SL SL SL	0	CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	11 TATICA 11 DAE AE OR 	32.1 E SCARI  2.6 4.5 7.0 10.3 5.3 15.4  PTH 1 10.9 5.7 2.6 8.1	E- 231 4.6- 2.4- 2.2- 3.5- 4.8- 2.9- 8-331 8.8- 4.8- 2.7- 2.5- 6.5-	44.0.2 -5.8 -6.3 -13.8 -7.6 -9.5 -12.7	TL SL NL NL SL SL SL NL NL SL SL NL NL SL SL NL NL SL SL NL NL SL SL SL NL NL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3 2.7 80.4 18.7 0.3 14.1 4.9	0.0
HIFFOGLOSSINA ORLONOUS GLYFTOEFPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIFELIS AMERICANUS ENCHELYPPIS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEAR IS PEPPILUS IRLACANTHUS CIT FAPILCHTHYS APCITERONS HIFFOGLOSSINA OBLANCUS GLYPTOEPPHALE'S CYNOGLOSSUS ADDITIONAL LARVAE CAUCH  0 A IR 09 CERATOSCOPPELUS MADERFNSIS LIFELIS AMERICANIS ENCHELYPPIS CIMBRIUS UFOFHUS AMERICANIS ENCHELYPIS CIMBRIUS UFOFHICIS SP. MERIUCCIUS BILINEARIS PERRILUS TIALCANTHUS CITHARICHTHYS ARCITERONS HIPPOSLOSSINA DREINGLS SCCENTHALMUS AQUOSUS	T OPHIDI  SAMPLI  1 470 1 2 86 4  T OPHIDI UNIDEN SAMPLI 2 87 4 2	IDAF	PTH (19.6 2.6 3.8 8.8 8.3 3.1 5.3 3.5 D	1.5- 2.7- 2.8- 2.9- 3.0- 3.0- 3.2-	4.9 3.5 8.2 4.5 9.0	TL SL NL SL SL SL SL SL SL SL	0	T CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	11 TATICA 11 DAE AE OR 	32.1 E SCARI. 3.6 4.5 7.0 10.3 15.4 PTH 1 10.9 5.7 2.6 4.8 5.7	EA E	44.0.2 -5.8 -6.3 -13.8 -7.6 -9.5 -12.7	TL SL NL NL SL SL SL NL NL SL SL NL NL SL SL NL NL SL SL NL NL SL SL SL NL NL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3 2.9 1.3 2.7 60.4 18.7 0.3 14.1	0.0
HIPPOGLESSINA DALAN CUS GLYFTOEPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  O 7 IR CO ENGRAULIS FURYSTOIF LEPFILS AMERICANUS ENCHELYOPLS CIMBRIUS UROPHYCIS SO. MERIUCCIUS RILINEARIS PEPPILUS TRIACANTHUS CIT PAPICHTHYS APCIIFRONS HIPPOGLOSSINA DRUNNCUS GLYPTOEPHALE'S CYNODUSSUS ADDITIONAL LARVAE CAUCH  O A IR OO CERATOSCOPPELUS MADERENSIS LEPHIUS AMERICANIS ENCHELYOPUS CIMBRIUS HIPOTENSENA	T OPHIOI  SAMPLI  1 470 1 2 86 4 IT OPHIOI UNIDEN SAMPLI 2 87 4 27 4 27 CPHIOI	10 AF  1 19 1 1 2 2 5 3 3 1 1 AF 1 1 1 2 7 1 1 1 1 2 7 1 1 1 1 1 1 1 1 1	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5 D PTH (18.5)	1.5- 2.7- 2.8- 2.9- 3.0- 3.0- 3.2-	4.9 3.52 8.22 4.5 9.0 9.5	TL SL NL SL SL SL SL SL SL SL	0	T CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	THICA IDAE A C PID ID I	32.1 E SCARI. 3.6 4.5 7.0 10.3 15.4 PTH 1 10.9 5.7 2.6 4.8 5.7	EA E	44.0.2 -5.8 -6.3 -13.8 -7.6 -9.5 -12.7	TL SL NL NL SL SL SL NL NL SL SL NL NL SL SL NL NL SL SL NL NL SL SL SL NL NL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3 2.7 80.4 18.7 0.3 14.1 4.9	0.0
HIFFOGLOSSINA ORLONOUS GLYFTOEFPHALL'S CYNCCLOSSUS ADDIT DNAI LARVAE CAUGH  7 IR C9 ENGRAULIS FURYSTOIF LIFELIS AMERICANUS ENCHELYPPIS CIMBRIUS UROPHYCIS SP. MERIUCCIUS BILINEAR IS PEPPILUS IRLACANTHUS CIT FAPILCHTHYS APCITERONS HIFFOGLOSSINA OBLANCUS GLYPTOEPPHALE'S CYNOGLOSSUS ADDITIONAL LARVAE CAUCH  0 A IR 09 CERATOSCOPPELUS MADERFNSIS LIFELIS AMERICANIS ENCHELYPPIS CIMBRIUS UFOFHUS AMERICANIS ENCHELYPIS CIMBRIUS UFOFHICIS SP. MERIUCCIUS BILINEARIS PERRILUS TIALCANTHUS CITHARICHTHYS ARCITERONS HIPPOSLOSSINA DREINGLS SCCENTHALMUS AQUOSUS	T OPHIDI  SAMPLI  1 470 1 2 86 4  T OPHIDI UNIDEN SAMPLI 2 87 4 2	IDAF	PTH (19.6 2.6 3.8 8.8 3.1 5.3 3.5 D PTH (8.5 5.1 26.5 7.8 4.7 2.8	1.5- 2.7- 2.8- 2.9- 3.0- 3.0- 3.2-	4.9 3.52 8.22 4.5 9.0 9.5	TL SL NL SL SL SL SL SL SL SL	0	T CPHICH CPH CPH CPH CPH CPH CPH CPH CPH CPH C	1 TI CA TI C	32.1 E SCARI. 3.6 4.5 7.0 10.3 15.4 PTH 1 10.9 5.7 2.6 4.8 5.7	EA E	44.0.2 -5.8 -6.3 -13.8 -7.6 -9.5 -12.7	TL SL NL NL SL SL SL NL NL SL SL NL NL SL SL NL NL SL SL NL NL SL SL SL NL NL SL			0.3 1.7 5.3 164.7 20.6 0.7 51.5 6.5 0.3 2.7 80.4 18.7 0.3 14.1 4.9	0.0

TABLE 3. (continued)			
CRUISE DATE C6612 1966 STA. D M SPECIES ANALYZED A 1 15 10 UFCFHYCIS SP.	NUMBER LENGTHS (MM) NO. TOTAL MEZS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH C- 6M 1 1 3.6	NUMBER LENGTHS (MM) NC. TOTAL MEAS. MEAN RANGE MEAS. EGGS	NO. PER IOM LAFVAE EGGS
MERLUCCIUS BILINEARIS PARELICHTHYS CENTATUS SCOPHITHALMUS ADUNNUS ACOIT IONAL LARVAE CAUGHT	3 2 3.4 3.1-3.7 NL 0 2 2 4.6 3.0-6.2 SL 4 1 1 3.3 SL		0.4 C.C 0.2 0.5 0.1
A 2 15 1C  BREVOORTIA TY FANNUS  ENCHEL YOPLS CIMBRIUS  UFCFFYCIS SP.  MERLUCCIUS BILINEARIS  PARALICHT HYS DENTATES  SCCFHTHALMUS ZOUGSUS  ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15 M  1	S AMPLING CEPT F 18-24M 4 4 4.4 4.1- 4.7 TE 6 6 2.4 2.2- 3.9 SL 2 2 2.4 2.4- 2.5 NL 31 3C 4.1 2.8- 5.3 NL 25 24 4.0 2.9- 7.7 SL  UNIOENT IF IE 0	1.0 1.3 0.3 9.9 4.7 0.3
A 3 15 1 C FNCFFLYOPUS CIMBRAUS UROFHYCIS SP.	SAMPLING CEPTH 0-15M 0 1 1 12.5 NL	SAMPLING DEPTH 18-23M 6 3.5 2.7-4.1 St 0	2 · C 0 · C 0 · 3
MEPLUCCIUS BILINFARIS REICNOTUS CARCLINHS PARALICHTHYS DENTATUS SCCENTHALMUS AQUONUS	8 8 4.7 2.8-6.7 NL 0 3 3 4.8 4.2-5.4 SL 0 1 1 2.8 SL	37 33 4.5 2.←26.5 NL 1 1 1 3.1 14 14 2.7 2.€ 5.5 SL 3 1 1 2.6 SL	14.7 C. 3 0.3 5.6 1.0
A 4 15 10  RREVORTIA TY FANNUS  FNCHEL YOP LS CIMBRIUS  MERLUCCIUS BILINEAR IS  PARALICHTHYS DENTATES  SCOFFFHALMUS AQUONUS  ACOLTIONAL LA FVAF CAUCHT	SAMPLING OEPTH C-15 M  1 1 9.3  14 13 3.4 2.5-4.1 5L I  105 1C2 3.5 2.3-6.9 NL 31  34 34 4.0 2.7-5.4 5L 1  12 1C 3.3 2.2-4.3 SL  UNIDENTIFIED	SAMPLING CEPTH 18-33M  216 207 3.5 2.3-5.7 NL 63 23 23 4.1 3.5-5.6 SL 0 13 13 3.2 2.8-4.2 SL	0.3 4.7 0.3 103.5 30.2 17.9 0.3 7.9
A 5 15 10  FACHEL YOPES CIMBRIUS  UPCCHYCIS SP.  MERLUCCIUS BILINEARIS  CITHARICHTHYS ARCHIERONS  PARALICHTHYS ENTATUS  SCOPHTHALMUS AQUINUS  ADDIT MINAL LAPVAE CAUGHT	SAMPLINC DEPTH 0-15M  79 11 3.5 2.2- 4.6 NL 6 6 3.1 2.7- 3.7 NL 12 1 1 5.7 SL 49 46 4.6 3.6- 7.5 SL 16 16 4.3 3.3- 5.3 SL UNIDENTIFIED	SAMPLING DEFTH 18-33N  27 20 3.0 2.0-4.5 NL  73 67 3.0 2.0-4.6 NL 275  3 3 4.5 3.4-5.1 SL  55 56 4.2 2.9-8.2 SL 0  16 16 4.3 3.1-5.6 SL  8LENNIDAE UNIDENTIFIED	0.0 2.2 22.7 26.1 95.3 1.3 24.4 0.0
A 6 15 10  LOPEIUS AMERICANUS  ENCHELYOPUS CIMBRIUS  UFCHYCIS SP.  MERIUSCIUS BILINEARIS  CITEARICHTHYS ARCHIFRONS  PARALICHTHYS DENTATUS  S COPHTHALMUS AQUOSUS	SAMPLINC CEPTH 0-15H 1 1 7.6 TL 34 25 4.4 2.4- 6.6 NL 8 8 5.5 3.1-11.5 NL 1 3 3 5.5 3.2- 6.8 SL 4 4 6.0 4.2- 9.5 SL	SAMPLING DEPTH 1E-23M 2 2 6.8 6.6-7.1 TL 26 21 4.5 2.4-8.2 NL 191 177 4.7 1.8-12.8 NL 2 3 3 7.2 4.9-10.0 SL 5 5 5.0 3.9-5.9 SL 4 4 3.9 3.1-4.7 SL	1.0 0.0 1.7 18.9 66.1 1.0 1.0 2.6 0.0 2.5
A 7 15 10 1 OPPHUS AMERICANUN URCEHYCIS SP. — MERLUCCIUS BILINEMRIS CITEARICHTHYS ARCTIFRONS PARALICHTHYS CENTATES ADDITIONAL LARVAE CALGHT	52 1C 10.6 6.8-16.0 NL 2 2 9.9 3.0-16.8 NL 0 1 1 3.5 SL 0	SAMPLING OEPTH 1R-33M 1 1 6.3 TL 39 9 10.2 6.1-16.5 NL 4C 4C 13.5 3.7-21.5 NL 0 2 2 13.8 13.3-14.3 SL OPHICIIDAF GOBIJOAE	0.3 28.6 13.9 0.7 0.3
P L 14 LO A NCHOA METCHILLE MERLUCCIUS BILINEARIS PARALICHTHYS CENTATLS SCOPHTHALMUS ADUNSUS	SAMPLING DEP TH C- 6M 8 8 35.6 29.1-45.1 TL 2 2 4.1 3.5- 4.7 SL 0 4 4 3.9 3.7-4.1 SL		1.0 0.0 C.2 0.2 0.0 0.5
P 2 14 1 C RREVOORTIA TYRANNUS FACHELYCPUS CIMBRIUS UROPHYCIS SP. MERLUCCIUS BILINEAR IS PRIONOTUS CAROLINUS CITHARICHTHYS ARCTIFRONS PARALICHTHYS DENTATUS SCOPHTHALMUS AQUONUS AROITIONAL LARVAE CAUCHT	SAPPLING CEPTH 0-15M 15 15 13.7 6.9-18.7 TL  1 1 5.0 ht 1 1 2.8 NL 6  1 1 16.6 St 4 4 5.9 4.2- 7.3 St 6 6 3.7 2.7- 5.5 St	SAMPLING DEPTH 18-24M 9 7 5.3 3.6-8.2 TL 4 4 2.5 3.5-4.3 SL 0 4 4 5.5 3.2-6.8 NL 1 1 5.1 3 3 16.4 15.2-18.0 SL 25 25 4.0 3.1-7.3 SL 6 6 2.9 2.5-3.4 SL	6.1 0.6 0.3 1.0 0.2 0.8 5.3 2.8
ADOL: HUMAN CHEVAS CAUCHI	OHIOCHI ITTIO		

TABLE 3. (continued) [24]

TABLE 3. (continued)		124		
CRUISE DATE C6612 1966 STA. D.M. SPECIES ANALYZEC	TOTAL MIAS. MEAN	THS 1MM1 NO. RANCE MEAS. EGGS	TOTAL MEAS. MEAN PANGE MEAS.	NO. NO. PER 1CM EGGS LAEVAE EGGS
B 3 14 LC BREVOORTIA TYRANNUS	SAMPLING OFFTH 0-1 24 22 11.7 4	. 4- 18.7 TL	SAMPLING OEPTH 16-23M 31 27 5.9 4.0-11.1 TL	17.5
A NO HOA HE PSEITLS FNO FEL YOPUS IC THARALUS	1 1 23.7 1 1 3.9	TL SL 0	13 13 4.0 2.7- 5.0 SL	0 .3 0 4.6 C. C
HEREHYCIS SP.	3 3 20 • 1 16	.0-23.6 NL	2 2 15.7 16.5-23.0 NL	1 .6
MERLUCCIUS BILINEARIS PRICHOTUS CAROLINUS	1 1 3.3 10 10 4.3 3	NL 10 3.0- 6.1 SL	19	19 6.6 9.3
CITHARICH THYS ARCTIFRENS FTREPUS MICROSTOMUS			1 1 15.2 St 2 2 4.8 4.3- 5.3 St	0.3
PARALICHTHYS CENTATES		.8- 8.3 SL 0	71 69 4.0 2.9- 8.8 SL	6 24.3 2.0
SCOPHTHALMUS AQUOSUS A COITIONAL LARVAE CAUCH		.0- 7.5 SL	9 8 4.2 2.6- 6.8 SL CPH10110AE	4.8
			• • • • • • • • • • • • • • • • • • • •	
P 4 14 10	SAMPLING OFFTH C+1		SAMPLING CEPTH 18-33M	
BREVOORTIA TYPANNIIS FNGRAULIS EURYSTOIF	B A 9.7 7	'.1-11.3 TL	2 2 5.8 9.7-10.0 TL 4 4 10.8 8.1-13.1 TL	3 •1 1 • 3
L (PHIUS AMERICANUS Enchel yop US CIMBRIUS		0	5 5 19.4 15.3-25.0 TL 42 40 4.5 2.3- 6.5 SL	1.7
UFOFHYC15 SP.		.2- 7.9 NL	99 25 8.5 3.0-26.1 NL	1 14.0 0.3 40.5
MERIUCCIUS BILINEARIS PEPRILUS TRIACANTHUS	6 6 5.7 4	.2- 6.8 NL 6	145 142 6.4 2.5-18.5 NL 1 1 5.2 SL	9 50.1 4.8
PELENOTUS CARMINUS CITHARICHTHYS ARCTIFRONS			1 1 3.0 SL	0.3
PARALICHTHYS CENTATUS	2 2 6.0 5	6.6- 6.5 SL 0	7 7 12.3 6.4-17.2 SL 33 31 5.3 3.7- 7.5 SL	0 11.6 0.0
HIPFOGLOSSINA OBLANCUS SCCENTHALMUS AQUOSUS	4 4 4.0 3	.0- 5.2 SL	5 5 5.4 3.7- 7.4 SL 10 9 4.7 2.7- 6.6 SL	1 • 7 4 • 5
GLYFTOCEPHALLS CYNO (LESSUS			1 1 2 C . 1 SL	0.3
A ODITIONAL LARVAE CAUGH	LNIOENTIFIED		UNIDENTIFIEC	
B 5 14 1 C	SAMPLING OFFTH 0-1	5 M	SAMPLING OFFTH 18-33M	
BREVOORTIA TYRANNIS COPHLUS AMERICANUS	9 5 13.1 9	3-16.2 TL	4 3 8.8 6.9- 9.7 TL	4.0
ENCHEL YOP US CIMBRIUS	1 1 21.6 3 3 7.5 5 72 13 7.9 4	.1-10.3 SL 3	2 2 14.2 12.5-16.0 TL 10 10 4.9 2.6- 7.2 St	1.0 0 4.2 1.0
UFCFHYCIS SP. MERIUCCIUS BILINEARIS	72 13 7.9 4 24 23 9.6 4	.0-15.5 NL .1-14.1 NL 2	23 17 4.8 2.8-14.5 NL 204 200 7.5 2.7-13.f NL	29.3
PEPEILUS TPIACANTHUS	1 1 9.4	SL		0.3
PRIEND TUS CARCLINHS CITHARICHTHYS ARCTIERONS	4 4 10.8 4	.2-13.8 SL	2 2 3.4 3.2- 3.7 SL 19 19 9.8 4.5-14.3 SL	0.7 7.5
FTREPUS MICROSTOMUS PARALICHIHYS DENTATES	1 1 3.3	SL 0	1 1 3.9 St 11 11 4.6 3.4- 6.8 St	0 ·3 0 4 · 0 0 · C
HIPFOGECS SINA OBLUNGUS			4 4 4.7 3.2-6.4 SL	1.3
SCOPHTHALMUS AQUONUS A COIT IDNAL LARVAE CAUGH	1 1 3.3	SL	9 9 4.1 3.1- 5.8 SL GC811CAE	3.3
		• • • • • • • • •		
P 6 14 10 REE VOORTI A TY FANNUS	SAMPLING CEPTH 0-1		SAMPLING CEPTH L8-33M	0.2
A NEHDA HEPSETLS	1 1 9.6	TL	2 2 12.2 6.€—17.9 TL	0 •3 0 •7
LIPHIUS AMERIKANUS Enchelyopus Cimbrius	1 1 24.7 6 6 5.2 2	.5- 7.0 SL 0	7 7 11.8 4.4-21.8 TL 25 25 4.7 1.7- 8.0 SL	2.6 0 10.1 0.0
UROPHYCIS SP.	177 23 8.6 2	.9-19.4 NL	136 24 6.6 3.0-14.6 NL	58.4
MERLUCCIUS BILINEARIS PRIONOTUS CAROLINUS	2 2 4.1 4	.3-16.5 NL 0 .0-4.3 SL	277 277 1C.8 2.2-21.0 NL 2 2 4.1 3.6- 4.7 SL	0 101.6 0.0
CITEARICHTHYS ARCFIFRONS PARALICHTHYS DENTATUS	3 2 11.2 6 1 1 3.8	.6-15.7 SL SL 0	52 25 8.8 4.2-14.6 SL 5 9 4.6 3.8- 7.8 SL	0 3.3 0.0
HIPPOSICS SI NA OBLIMGUS	4 4 6.9 3	.5-10.2 SL	8 8 5.5 3.7- 7.0 SL	3.9
S C C FHT HAL MUS - AQUD S U.S. A OD I T. ION AL - L'ARV A E - C AU C HI	2 1 3.3 SERRANICAE	SL		0,•7
	UNIDENTIFIED			
2.7				
8 7 14 10 CERATOS EN PELUS MADE RENSIS	SAMPLINE DIPTH 0-1 1 1 15.1	SL	SAMPLING DEPTH 1 E- 33M	0.3
LCPHIUS AMERICANUS FNCHFLYOPUS CIMBRIUS	1 1 5.C	TL 0	1 1 4.7 TL 1 1 6.3 St	0.6
UROPHYEIS SP.		.6- 8.4 NL	12 10 5.3 3.5- 7.5 NL	44.0
MER LUCCIUS BILINEAR IS CITHARICH THYS ARCTI FRONS		.3-15.7 NL 0 .7-11.5 SL	59 58 5.6 3.5-15.0 NL	0 24.2 0.C 0.7
A CO IT DNAL LARVAE CAUGHT	OPHIOIICAE UNIOENTIFIIO		CPHIDIIDAE	
C 1 13 10	SAMPLING DEPTH 0-1	5M		
TIRCEHYCIS SP. PRICHOTUS CAROLINUS	1 1 9.3 3 3 3.2 2	NL •9- 3•4 SL		0.3 0.9
PARALICHTHYS DENTATES SCOPHTHALMUS AQUUNUS	8 8 6.0 3	.8-10.2 SL 0		2.4 0.0
DEPENDENCE AQUUNUS	5 5 3.4 2	.7- 4.6 SL		1.5

TABLE 3. (continued)			
CRUISE DATE D6612 1966 STA. D.M. SPECIES ANALYZED C.2. 13 1C AREVODRTIA TYRANNIS	NUMBER LENGTHS IMM! NO. IDTAL MEAS. MEAN RANGE MEAS. EGCS SAMPLINC CEPTH O-15M L55 65 11.6 5.0-18.2 TL	**************************************	ND. PER 10M LARVAE EGG 5
ANCHOA HEPSETUS	10 10 9.8 5.0-11.7 TL 1 1 5.6 St 0		3.0 0.3 0.0
ENCHELYOPUS CIMBREUS UFCFHYCIS SP.	53 25 4.5 2.1- 7.5 NL		16.1
MERLUCCIUS BILINEARIS PEPRILUS TRIACANTHUS	3		0.9 0.0 2.1
PPI (NOTUS CARTLINIAS	70 25 4.0 2.9- 6.D SL		21.2
C [THARICH THYS ARCII FRONS PARELICHTHYS EENTATUS	1 1 4.8 SL 44 44 4.8 3.0- 7.5 SL 0		0.3 13.3 C.C
HIPFOGLESSINA OBLANCUS	1 1 5.2 SL		0.3
S COPHT HALMUS AQUOSUS A DDIT IONAL LARVAE CAUCHT	123 50 4.3 2.6- 7.3 SL		27.3
	UNIDENTIFIED		
C 3 13 10  RECUDENTIA TYRANYUS	SAMPLINC DEPTH 0-15M 398 153 11.5 7.7-16.2 TL	SAMPLING DEPTH 18-24M 4 4 10.8 9.3-12.2 TL	178.6
ANCHOA HEPSETLS	376 133 11.3 1.1-10.2 10	1 1 29.6 TL	0.2
ENGRAIJE IS EUR YSTOFF ENCHELYOPUS CIMBRIUS	27	31 31 10.6 5.3-25.6 TL 7 7 4.0 2.7-5.2 SL 0	13.3 2.7 C.C
UPOPHYCIS SP.	132 27 4.9 2.5- 7.2 NL	23 22 4.7 2.5-1E.7 NL	44 .2
MERLUCCIUS BILINEARIS PERBILUS TRIACANTHUS	5 5 7.1 3.5-13.2 NL 1 5 5 5.2 4.6- 6.5 SL	15	4.0 (.6 3.0
PRIONDITUS CAPOLINUS	263 54 4.0 1.9-6.7 St	77 24 4.2 2.1- 6.1 SL	53.2
C 1THARICH THYS ARCF FRONS PARALICHTHYS DENTATES	9 8 5.2 3.6-11.5 SL 40 39 5.7 3.0-8.0 SL 19	10	4.4 30.4 8.1
HIPFOGL OS SINA O BLON CUS	3 3 6.7 5.4- 7.8 SL	30 25 4.5 2.7- 7.1 SL 142 50 4.5 2.7- 8.9 SL	5.8
SCD PHTHAL MUS AQUIDSUS A DO IT IDNAF LARVAE CAUGHT	60 59 4.5 2.2- 7.7 SL IDPHIDIIDAE	142 5C 4.5 2.7- 8.9 SL Unidentified	41.4
			• • • • • • • •
C 4 13 10	SAMPLING CEPTH C-LSM	SAMPLING DEPTH LE-33M	
RREVOORTIA TYRANNOS FNGRAULIS EURYSTOAE	19 18 11.3 5.4-17.4 TL 23 22 7.5 4.4-12.8 TL	1 4 3 10.3 8.7-12.2 TL	6.3 8.2
LCPHIJS AMERICANUS		1 1 9.9 TL	0.3
ENCHELYCPUS CIMBRIUS UROPHYCIS SP.	20 20 4.5 3.5- 6.2 SL 0 469 22 5.2 3.0- 8.9 NL	20 15 4.7 3.3- 6.6 St 0 64 15 6.7 3.6-14.C NL	12.7 0.0 162.0
MERLUCCIUS BILINEARIS PEPRILUS TRIACANTHLS	38 38 5.8 2.6- 5.2 NL 0 6 6 5.0 3.7- 5.8 SL	65 62 6.7 2.6+13.0 NL 2 4 4 3.2 1.5- 6.7 SL	33.1 0.7 3.1
PETCHOTUS CAROLINIS	6 6 5.0 3.7- 5.8 SL 75 27 4.2 2.5- 6.0 SL	4 4 3.2 1.5- 6.7 St 14 14 4.4 2.6- 6.8 St	27.2
C ITHARICH THYS ARCII FRENS E TROPUS MICRO STOMMS	16	13	9.1
PARALICHTHYS DENTATUS	78 78 5.7 3.2- 8.4 SL 6	43 43 6.0 3.3- 8.2 SL 2	37.7 2.5
HIPPOGLOSSINA DBLONCUS SCOPHTHALMUS AQUINUS	4 4 5.7 4.3- 7.2 SL 51 48 4.2 2.7- 6.7 SL	3	2 •2 33 •6
A DO I TIONAL LARVAE CAUCHT		ANG UTLL TECRMES	
		STROMATELIAE	
C 5 13 10	SAMPLING DEPTH 0-15M	CAMON THE PERTY. LE 224	
ENCHELYOPUS CIMBRIUS	18 15 4.4 3.5- 5.9 SL 0	SAMPLING DEPTH	10 .4 0.C
URCPHYCIS SP. Merluccius bilinearis	659 26 3.8 2.8- 4.9 NL 34 33 5.0 2.6- 7.3 NL 1L	140	2 44 •3 64 • 2 5 • 6
PEPELLUS TRIACANTHUS	6 6 8.0 5.0-15.2 SL	4 4 7.6 6.8- B.9 SL	3.1
CITHARICH THYS ARCHIFRONS PARALICHT HYS CENTATUS	20 20 7.8 3.6-14.7 SL 6 6 5.5 5.0- 7.8 SL 0	134 25 6.4 4.3-11.5 SL 4 4 6.3 5.0- 7.9 SL 0	50.7 3.1 0.0
HIPPOSICS SENA DBLONEUS S CD PHT HAL MUS AQUD S U S	9 9 5.4 4.1- 7.6 SL 3 3 4.9 4.7- 5.4 SL	12	6 • 7 2 • 2
ACDITIONAL LARVAE CAUGHT		OPHIDIDAE	2.02
		LABRIDAE DR SCARICAE UNIDENTIFIEC	
C 6 13 10	SAMPLING DEPTH C-15M	SAMPLING CEPTH [8-33M	
ENCHEL YOPLS CIMBRAUS UROPHYCIS SP.	I I 3.8 SL 0 55 19 4.9 3.5-5.7 NL	25 24 4.2 2.2- 5.7 SL 0 22 19 4.5 2.3- 8.8 NL	8.6 0.0 23.8
MERLUCCIUS BILINEARIS	34 34 7.6 3.1-12.2 NL [	100 99 7.8 2.2-16.3 NL 17	43.5 6.0
PRICNOTUS CAROLINUS CITEARIGHTHYS ARCEIFRONS	2	1 1 2.5 SL 16 16 7.7 3.4-12.6 SL	0.9 6.5
PARALICHTHYS DENTATES	0	1 1 4.8 SL 0	0.3 0.0
HIP POGLOS SINA OBLANGUS SCOPHTHALMUS AQUONUS	3 3 6.6 5.6~ 7.5 SL	2	1.6
ADDITIONAL LARVAE CAUGHT		UNIDENTIFIED	
C 7 13 10 ENGRAULIS EURYSTOLF	SAMPLINC CIPTH O-15M 1 I 9.C TL	SAMPLING DEPTH 18-33M	0.3
LCPHIUS AMERICANUS	1 1 9.5 TL	4 4 5.8 7.2-15.2 TL	1 •6
ENCHEL YOP LS CIMBRIUS UFCFHYCIS SP.	1 1 7.3 St 0 92 21 5.2 3.2-10.5 NL	24 23 5.2 3.5- 8.9 SL 0 604 29 5.5 3.0-L0.6 NL	8.3 C.C 228.9
MERLUCCIUS BILINEARIS	45 43 13.5 3.9-29.2 NL 4	490 487 9.9 2.3-33.8 NL 3	176.8 2.2
PRICNOTUS CAROLINUS CITHARICH THYS ARCIIFRENS	1 t 3.5 St 19R 25 R.1 3.3-15.1 St	171 25 f.1 4.2-14.4 SL	1 16 .4
HIPPOGLOSSINA DBLINGUS ADDITIONAL LARVAE CAUCHT	8 8 5.7 3.2-8.5 SL	7 7 6.4 4.4~ 8.2 SL UNIDENTIFIEC	4.7
MODEL HOWAR CANAGE CHOCKE	e motter	OTT WE STILL LE C	

TABLE 3. (continued)	126	
CPULSE DATE  P6612 1966  STA. D.M. SPECIES ANALYZEC  C.P. 13 10	NUMBER LENGTHS (MM) NO.  TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15M  ***********************************	NO. PER 10M LARVAE EGGS
UFCFHYCIS SP. MEDITECTUS BILINEARIS ADDITIONAL LADVAE CAUGHT	1   11.3 NL	3.0
T 1 (6 1C PREVIORTIA TYPANNUS URDPHYCIS SP. MERTUCCIUS BILINEAR IS	SAMPLING DEPTH C- 6M 2 2 7.6 5.1-10.2 TL 3 2 2.9 1.S- 4.3 NL 1 1 2.7 NL 0	0.2 0.4 0.1 C.C
PFICNOTUS CARCLINUS PARALICHTHYS DENTATES HIPFOGLOS ANIZOTUS SOUNDATH HIPFOSC ACDIT INAC LARVAE CAUGHT	27	3.3 0.7 C.1 0.1 1.9
		• • • • • • • •
D 2 CA 10  8 PE VOORPTIA TYFANNIIS  II FOFFYCTS SP.  PRICNOTUS CAPCLINIIS  PARALICHTHYS DENTATUS  SCCFHTHALMUS AQUINUS  ADDITTINAL LARVAE CALGHT	SAMPLINC DEP TH 0-6M 5 5 6-9 4.4-8.7 TL 3 2 2.9 2.9-3.C NL 187 25 3.3 1.7-5.0 SL 7 7 3.2 2.9-3.8 SL 2 92 50 3.2 2.2-4.7 SL CPHIDIICLE SYNGNATHIDAE	0.6 0.4 22.7 0.8 C.2
		• • • • • • • •
C 3 C5 LO 8 PEVORTIA TYFANNIS ENCRAUL IS EUR YSTOLF ENCRELYDOUS CIMBRIUS	SAMPLING DEPTH C-15M 89	27 .0 4.5 0.6 0.0
UPOPHYCIS SP. MERLUCCIUS BILINEAR IS	115 21 3.5 2.1-5.5 NL 3 3 7.1 6.9-7.4 NL 0	24.8 0.9 C.C
PEPFILUS TRIACANTHUS PRICNITUS CARCLINIIS CITHARICHTHYS ARCHIFRONS ETROPUS MICROSTOMIS	13 13 3.7 2.3- 7.5 SL 830 29 3.4 1.8- 4.8 SL 1 1 12.2 SL 7 7 3.7 3.0- 4.9 SL	3.9 251.5 0.3 2.1
PARALICHTIYS CENTATUS HIPFOSUNSSINA DELONUS SCORHTHALMUS AQUITUS ADDIT (ONA) LARVAE CAUGHT	100	20.3 8.2 2.1 157.3
		• • • • • • • •
C 4 12 10 BREVOORTIA TYFANNUS ENGRAULIS EURYSTOLE	SAMPLING DEPTH 0-15M SAMPLING CEPTH 18-24M 24 17 8.1 4.7-12.8 TL 105 41 6.8 4.7-12.8 TL 3 2 9.8 9.0-10.6 TL 3 3 5 6.5 7.4-10.2 TL	24 •3 1 •4
ENCHELYOPUS C M 83 IUS UPO PHYCIS SR.	1 1 4.3 St 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.3 0.C 22.0
MERLUCCIUS BILINEARIS PENATOMUS SALTATRIX	0 1 1 15.0 NL 2 2 2 3.6 3.3- 4.0 SL	0.2 C.3 0.3
PEPRILUS TRIACANTHUS PRICHOTUS CAR CLINUS CITHARICH THYS ARCTIFRONS	1	2.9 68.9 0.8
ETROPUS MICROSTOMUS PARALICHTHYS CENTATUS	3 3 3.7 2.4- 5.3 SL 8 8 4.0 3.0- 5.3 SL 29 29 4.4 2.6- 6.9 SL 39 59 55 4.4 3.0- 5.9 SL 64	2 • 2 18 • 5 2 2 • 3
H IPPOGLOSSINA DBLANGUS SCCFHTHALMUS ADUNNUS ADDITIONAL LAPVAE CAUCHT	UNIDENTIFIED SERRANIOA E UNIDENTIFIED	1.3 57.0
• • • • • • • • • • • • • • • • • • • •		• • • • • • • •
O S 12 10  RREVOOR TIA TYRANNIS  PROFAULIS EURYSTOLE  FRCHELYDPLS CIMBRIUS	SAMPLING DEPTH C-15M SAMPLING DEPTH 18-24M 11 10 7.8 5.0-10.0 TL 50 50 6.5 3.1-12.5 TL 2 2 6.3 5.8-6.8 TL 2 2 10.9 10.0-11.9 TL 0 1 1 2.4 SL 0	11.5 0.9 0.2 0.0
URCEMYCIS SP. MERIUCCIUS BILINEARIS CENTROPRISTIS STRIA TA PEPRILUS TRIACANIMUS	23 12 4.1 2.9- 5.5 NL 56 24 3.8 1.7- 7.5 NL 1 1 6.2 NL 1 4 4 6.1 4.6- 8.3 NL 30 1 1 5.0 SL 1 1 7.1 SL 2 2 16.5 4.5-28.6 SL 2 2 5.1 5.0-13.3 SL	16.1 1.0 5.2 0.5 0.9
PRICHOTUS CARCLINUS CITHAPICHTHYS ARCTIFRONS EIRCRUS MICROSTOMUS PARALICHTHYS DENTATUS	46 41 4.1 2.4- 5.4 SL 107 23 3.5 1.5- 5.5 SL 1 1 3.8 SL 5 4 3.8 3.1- 4.6 SL 17 14 5.1 2.7- 8.6 SL 11 9 4.8 3.7- 6.4 SL 32 53 47 4.1 2.8- 7.9 SL 55	31 .4 1 .1 2 .7 12 .0 1 E . 7
SCOPHTHALMUS ADUNTUS ADDITIONAL LAPVAE CAUGHT	20 19 4.0 2.7- 6.0 SL 91 83 3.2 2.2- 6.1 SL UNIDENTIFIED UNIDENTIFIED	20.8

TABLE 3. (continued)	127	
CRUISE DATE D6612 1966 STA. D M SPECIES ANALYZED D 6 12 10 AREVIDATIA TYRANNIS ENGFAULIS EURYSTOIE ENCHELYDPUS CIMARIUS UFCFFYCIS SP. MERLUCCIUS BILINEARIS PFPRILUS TRIACANTHUS PFICNOTUS CARCINUS CITHARICHTHYS ARCITERONS PARALICHTHYS CENTATUS HIPPOGLOSSINA OBLONEUS SCOFHTHALMIS AUDSUS ACOITIONAL LAFVAE CAUCHT	**************************************	NO. PER 10 P LAPVAE EGGS 8.8 2.8 0.3 0.0 258.2 F2.5 8.8 7.3 E2.3 8.8 4.3 6.2
	Cutorutifico	
O 7 12 10  ENGRAULIS EUR YSTOLF LCFFIUS AMERICANUS ENCHELYOPUS CHMBRIUS UPOPHYCIS SP. MERLUCCIUS BILINEARIS PEPRILUS TRIACANTHUS PRICNITUS CARCLINUS CITHARICH THYS ARCIIERONS PZRALICHT TYS EENTATUS HIPPOGLCSSINA OBLONCUS SCOPHTHALMUS AUDONUS ADDITIONAL LZRVAF CAUCHT	UNIDENTIFIED OPHIDIDAE  LABRIDAE CR SCARICAE  UNIDENTIFIED	0.3 0.6 0.9 3(3.4 27.8 1.5 126.0 145.3 0.7 9.5 0.9
O 8 12 10 LOPHUS AMERICANUS ENCHELYOPUS CIMBRIUS UNOPHYCIS SP. MERUUCCIUS BILINFARIS PEFFILUS TRIACANTHUS PRICNOTUS CARCLINIS CITHARICHTHYS ARCHIFRONS HIPPOGUCSSINA OBLINIGUS ACOITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M  1	0.6 1.0 C.C 212.0 13.6 13.6 0.6 1.0 67.0 2.2
F 1	SAMPLINC DEPTH C- 6M  10 9 7.2 5.6- 8.7 TL  1 1 16.5 TL  1 1 1.1 NL  89 21 2.7 2.0- 3.7 SL  1 1 3.7 SL  1 1 4.1 SL 0  5 5 2.6 2.2- 2.9 SL  CPHIOLICIE	1.2 0.1 0.1 10.8 0.1 0.1 0.6
	SAMPLINE DEPTH C- 6M 2 2 4.7 3.1-6.3 TL 10 7 2.0 1.5-2.4 NL 134 29 3.6 2.2-5.5 SL 17 16 2.9 2.3-4.1 SL 10 9 3.7 2.9-4.8 SL 0 16 16 2.7 2.3-3.0 SL OPHIDIICAE UNIDENTIFIED	0.2 1.2 16.2 2.1 1.2 0.0
F 3 CS LO RPE VOORTIA TYRANNIS UFCEFYCIS SP. CENTROPRISTIS STRIATA PRICHITUS CARCULNUS ETACRUS MICROSTOMUS PARALICHTHYS DENTATUS HIPFOGLOSSINA ORUNICUS SCORHTHALMUS ADUNGUS ADDITIONAL LARVAE CAUGHT	SAMPLINC DEPTH 0-6H 6 6 5.9 4.0-10.3 TL 29 23 2.P 1.8-4.2 NL 1 1 5.0 SL 83 17 2.7 1.5-3.5 SL 23 23 3.0 2.3-3.5 SL 28 27 3.5 3.0-4.6 SL 6 5 3.0 2.8-3.2 SL 7 7 2.8 2.4-3.1 SL  OPHIOIICAE UNIOENTIFIED	0.7 3.5 0.1 10.1 2.8 3.4 5.5

TABLE 3. (continued)	128		
CRUISE DATE:  06612 1966 STA. D.M. SPECIES ANALYZED E 4 11 10  PREVMORTIA TY PANNUS  URDPHYCIS SP.  MERUCCIUS BILINEARIS  FFICNOTUS CARCLINUS  FIROPUS MICRO STOMUS  RARALICHTHYS CENTATUS	NUMBEP LENGTHS [MM] NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING CEPTH 0-15M 3 2 11.5 1C.0-13.0 TL 13 5 5.6 1.9-12.5 NL 1 1 2.8 NL 33 60 1R 3.3 1.6- 4.6 SL 1 1 3.9 SL 4 4 4.4 3.9-5.1 SL 119	************ LARVAE ************************************	NO. PER 10M LARVAE EGGS 0.9 3.9 0.3 LC.C 18.2 0.3 1.2 36.1
HIPPOSICSSINA OBLANCUS SCOPHIHALMUS AQUINUS ACQITIONAL LARVAE CAUGHT	3 2 3.1 3.0-3.1 SL 26 8 4.4 2.8-6.3 SL		0.9
E 5 11 1 C BREVOORTIA TYRANNIS ENGRAULIS EURYSTOLE ENCRELYDELS CIMBRIUS	SAMPLING DEPTH 0-15M 476 111 7.2 3.7-12.5 TL 1 1 13.1 TL 1 1 4.3 SL 0 437 22 3.6 1.6- 8.3 NL	SAMPLING DEPTH 1E-24M 563 89 6.6 2.9-13.7 TL 0 287 33 4.1 1.7-6.1 NL	2 37 .1 0 .3 0 .3 C. C
UEDFHYCIS SP. MERLUCCIUS BILINEARIS CENTROPRISTIS STRIATA PEPRILUS TRIACANTHUS PRICNITUS CAROLINUS	21 21 6.4 2.9-20.2 NL 1 1 1 6.1 SL 7 7 3.8 2.5- 5.5 SL 433 28 3.5 2.1- 4.7 SL	15 15 5-1 2-7- 7.6 NL 1 8 8 6-C 4-6- 7-6 SL 80 22 3-5 2-0- 5-0 SL	8.9 0.5 0.3 3.5 145.9
PFICNOTUS EVOLANS CITHARICH THYS ARCTIFRONS FTREPJS MICROSTOMUS PARALICHTHYS DENTATLS HIPPOGLOSSINA DB.ONGUS	1 1 6.4 SL 28 24 4.4 2.9-13.3 SL 41 40 5.0 2.8-6.4 SL 15 55 52 4.0 2.6-5.4 SL	19	0.3 11.7 0.5 18.9 5.1
SCOPHTHALMUS ADUNSUS A DO LI TIONAL LARVAE CAUGHT	140 50 3.7 2.4- 4.5 SL	21e 50 3.7 2.8- 6.2 St OPHIDITOAE UNIGENTIFIEC	78 .2
E 6 12 10 BEEVOORTIA TYRANNUS ENGRAUL IS EUR YSTOLE	SAMPLING DEP TH C-15M 66 36 10.4 7.7-13.0 TL	SAMPLING CEFT # 18-33M S S 5.6 4.9-12.2 TL 1 1 16.6 TL	22 •8 C•3
ENCHELY POUS CIMBRIUS URD PHYCIS SP MERUJCCIUS BILINEAR IS PEPRILUS TRIACANTHUS	1 1 4.1 SL 0 161 29 4.5 2.9-12.4 NL 35 34 6.6 3.1-25.0 NL 3 1 1 4.1 SL	0 69 20 4.9 2.6- 6.7 NL 18 18 8.5 4.5-23.4 NL 0	0.3 0.0 71.3 16.5 1.0
PRIONDIUS CARCLINUS CITHARICHTHYS ARCI I FRONS PARALICHTHYS DENTATUS H 10 FOGLOSSINA D BLUNCUS SCOPHTHALMUS ADDISUS ADDITIONAL LARVAE CAUCHT	62 22 3.9 3.0 - 5.0 St 30 27 6.7 2.7-13.5 St 13 13 5.7 4.9 - 6.6 St 0 9 5 4.2 2.5 - 5.6 St 40 16 4.1 2.4 - 5.8 St UNIOENTIFIEO	1 1 4.1 5L 44 25 6.0 3.6- 9.3 SL 8 8 (.4 5.4- 7.5 SL 0 2 1 6.4 SL 10 7 4.4 3.7- 5.8 SL OPHICITORE	20.7 23.7 6.6 3.4 15.3
	• • • • • • • • • • • • • • • • • • • •		• • • • • • • •
E 7 12 10 BREVOORTIA TY FANNIS ENCHELYOPLS CIMBRIUS U FOFHYCIS SP. MERLUCCIUS BILINFARIS C ITHARICH HYS ARCTIERONS E TROPUS MICROSTOMIAS PARALICHTHYS DENTATUS H JF FOGL OS SIN A OBLAN CUS	SAMPLING DEPTH C-15M  0 43 16 3.8 1.8-6.C NL 7 7 R.0 4.7-14.1 NL 13 12 6.8 4.7-8.7 SL	SAMPLING CEPTH 1E-33M 4 4 10.3 10.0-10.5 TL 1 1 2.5 SL 0 297 36 4.6 2.1-8.0 NL 52 52 10.C 2.8-31.4 NL 0 473 25 6.4 4.7-8.1 SL 1 1 7.1 SL 1 1 6.C SL 3 8 7 6.3 4.7-8.1 SL	1.3 0.3 0.0 111.9 19.4 0.3 0.3 0.3 1.0
A DO I TIONAL LARVAE CAUCHT		OPHIGITAE UNIDENTIFIEC	
E 8 12 10  UEOFHYCIS SP.  MERLUCCIUS BILINEARIS  CITHARICHTHYS ARCHIFRONS  HIFFOGLOSSINA OBLUNCUS  ADDITIONAL LARVAE CAUGHT	UN IDEN TIFIED	SAMPLING DEPTH 18-33M 21 9 3.2 1.7- 6.5 NL 2 2 3.0 2.8- 3.2 NL 0 8 6 5.3 3.7- 7.7 SL 3 2 4.4 3.6- 5.2 SL	51.7 2.2 10.2 1.3
F 1 C5 LO ANCHEA MITCHILLI UROPHYCIS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M 7 7 16.5 Ll.3-19.5 TL 2 2 2.6 1.7-3.5 NL SYNGNATHICAE COBIIDAE LNIOENTIFIED		0 .8 0 .2
F 2 C5 1C ANCHCA MITCHILLI ADDITIONAL LARVAE CALGHT	SAMPLING DEPTH C~6M 1 1 11.2 TL		0 .1

TABLE 3. (Continued)			
CPUISE DATE  CF612 1966  STA. D.M. SPECIES ANALYZED  F. 3. (5.10  UECFHYCIS SP.  PRICHDTUS CAPCLINHS  FTPERPIS MICROSTOMHS  SCORNTHALMUS ADUDNUS  ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15 M 2 1 3.1 15 15 3.2 2.4- 3.8 SL 16 16 3.3 2.6- 3.7 SL 1 1 3.6 SL	**************************************	NO. PER 10M LAFV FE EGGS 0.6 4.5 4.8 0.3
F 4 C5 IO PRESCORTE A TYPANNUS UPOPHYCES SP. CENTROPRISTIS STRIATA PRICNOTUS CARCLINUS CITEAR LCHTHYS ARCHIFFONS F DEPUS MICROSTOMUS PARM ICHTHYS DENTATUS HIFFOGLOSSINA ORLANCUS SCOPHTHALMUS AVONCUS ACRITIONAL LARVAE CAUGHT	UNIDENT IFIED		1.2 2C.0 0.6 27.9 0.9 2.4 0.3 C.( 1.2 0.3
F 5 C4 IO R PEVOORTI A TYPANNIIS FREEDILIS EURYSTOLE UROPHYTIS SP. M FREUCCIUS BILINEARIS C FRIPORRISTIS STRIATA PERFILUS TRIACANTHUS PETINOTUS CARRLINUS C ITHARICH THYS ARCITERENS FTP CPJS MICHOSTOMUS PARALICHT HYS CENTATUS HIPPOGLOSSINA DBI INCUS SCOFHTHALMUS JOURNUS ADDITIONAL LARVAE CAUGHT	SAMPLINC OEPTH C-15%  18 16 6.9 5.0-11.4 TL  33 21 3.1 1.9-10.2 NL 2 2 5.6 4.2-7.0 NL 0 2 7 5.4 5.3-5.6 SL 2 7 5.2 5.1-5.3 SL 191 24 3.2 2.4-5.2 SL 9 9 5.5 3.4-10.0 SL 5 5 4.4 3.6-4.9 SL 15 15 4.3 3.1-7.0 SL 62  CPHIDIIC E LNIGENTIFIED	SAMPLING OFFTH 18-24M 30 29 7.1 5.C-12.5 TL 3 3 17.9 15.6-20.0 TL 77 35 3.7 1.8- 8.9 NL 1 1 3.6 SL 1 1 2.8 SL 51 24 3.2 2.2- 4.5 SL 16 16 c.C 6.2-12.7 SL 3 3 3.8 3.3- 4.7 SL 103 99 4.C 2.9- 4.8 SL 31 28 3.6 2.9- 4.5 SL UNIDENTIFIED	10.4 0.5 22.6 0.8 0.8 0.8 66.9 5.4 2.0 21.3 25.3 1.0 5.0
F 6 (4 10  PREVOURTLE TY FANNUS  ENCRAULES FUR YSTOLE  FOR FELYOPUS C M BR FUS  UFF FHYCIS SP.  MERLICCIUS BILLNEAR IS  PREFILUS TRIACANTHUS  PRICHOTUS CARTINUS  C IT FARICHTHYS ARCIIFRONS  F PROPUS MICROSTOMIS  PARALICHTHYS CENTAILS  HIPFOGLESSINA OBLINIUS  SCOPHTHALMUS AUDINUS  ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 92 43 7.C 5.8-10.2 TL 4 12.9 10.0-14.7 TL  364 27 3.8 1.7-7.5 NL 70 69 6.4 2.9-23.3 NL 3 3 13.0 4.0-30.5 SL 373 29 3.0 1.9-4.3 SL 389 25 6.C 3.2-10.2 SL 15 15 5.0 3.3-6.9 SL 115 16 4.0 3.2-6.5 SL 77 50 3.3 2.7-5.2 SL 15 13 3.3 2.7-5.3 SL  OPHIDIICAE UNIDENTIFIED	SAMPLING CEPT   18-23M   8 6 7.2 6.9-7.6 TL    1	20.7 1.3 0.3 C.C 121.3 24.3 C.C 1.0 124.3 1.29.7 5.0 28.3 C.C 25.7
F 7 C4 10  B PE VOORTIA TYRANNIIS  F EG FAULTS FUP YSTOLE  L CPHILUS AM FRICANUS  UP OPHYCIS SP.  M FRIUCCIUS BILIN FAPIS  P F PRILUS TRIACANTHLS  PFICHOTUS CAPTINIS  CITMAPICH THYS ARCTIFRENS  H IP FOGLOSSINA OBLUN CUS  ADDITIONAL LARVAE CAUCHT	SAMPLING OEPTH 0-15M 426 38 6.6 3.1-8.5 TL 2 2 13.1 11.6-14.7 TL 1 1 5.1	SAMPLING OEPTH 18-33N 2 2 6.7 5.8- 7.6 TL 2 2 14.0 13.3-14.8 TL 1 1 4.9 TL 86 15 4.3 2.5- 7.5 NL 21 17 6.3 3.0- 9.3 NL 0 1 1 2.9 SL 9 9 3.3 3.0- 3.7 SL 120 25 5.4 4.0-15.0 SL 11 10 6.0 4.2- 8.1 SL OPHIDIIOAE UNIDENTIFIEC	1 42 .0 1 .3 0 .6 1 40 .9 8 .8 0 .0 0 .3 4 .5 72 .4 13 .3
		• • • • • • • • • • • • • • • • • • • •	• • • • • • • •
C 1 C4 10 ANCHOA MITCHILI	SAMPLING DEPTH C- 6M 19 19 25.4 14.8-47.1 TL		2.3
G 2 C3 10  PRIEMOTUS CARCUINIIS  PRIEMOTUS EVOLANS  FIREPUS MICROSTONIIS  A DOIT DNA4 LARVAE CAUCHT	SAMPLINC DEPTH 0- 6M 11 11 3.7 2.1- 6.0 SL 1 1 5.C SL 1 1 4.1 SL OPHIDIICAE		1.3 0.1 0.1

TABLE 3. (continued)															
CRUISE DATE D6612 1966 STA. D M SPECIES ANALYZED G 3 G3 IO 8 PE VOOR TIA TYRANNIIS	TO TAL SAMPL 1 1	BEF MEAS. NC DEF 1	LE MEAN TH O	NGT HS PAN 15M	(MM GE	) MEAS. TL	NO. EGGS	NU	M8ER	LE	NG THS I	MM)	ND.	NO. PE LARVAE	2 R 10 M EGG 5
UFCERMICTS SP.  PRICHOTUS CARCLINUS ETROPUS MICROSTOMUS PARALICHTMS DENTATUS HIPPOGLOSSINA DBLUNGUS ADDIT ENAN LARVAE CAUGHT		27 1	2. 4 3.4 6. 3	1. 7-2.3-	3.0 5.9		24							2.4 8.5 0.3 0.0	7.3
AUDIT ENAN LAVAE CAUGHT	• • •														
C 4 C4 10  RREYDORTIA TYRANNUS ENGRAULIS EUR YS TO4 F LCPHIUS AMERICANUN UFO DEHYCIS SP.  MERLUCCIUS BILINEAR IS C FN TPO PRISTIS STRIATA PEPRILUS TRIACANTHUS PRIFNOTUS CARCLINIS C ITHARICH THY SARCTIFRONS ETREPJS MICROSTOMIS PARALICHTHYS DENTATUS	SA MPL1 2553 10 1 804 1 1 1 2425 62 20 22	116 10 1 28 1 1 25 25 20 21	6.4 17.9 14.0 2.7 5.4 6.3 6.2 3.2 6.4 5.5	1.7- 1.7- 2.7- 2.7- 2.7- 3.2-	5.4 5.4 5.2 11.7 11.4 5.2	TL TL NL SL SL SL SL SL	0							7 73 .6 3.0 0.3 2 43 .6 0.3 0.3 0.3 7 24 .8 18 .8 6.1 6.7	0.0
HIP POGLOS SINA OBLONGUS SCCFHTHAL MUS ZOUDSUS	64 28	60 28		2.9- 3.1-										19.4 8.5	
ADDITIONAL LARVAE CAUGHT			D												
				• •	• •		• • •						• • • •		
G 5 C4 10  8 REVTORT I A TYRANNUS F NG FAUL IS EUR YSTOI E I OPFIUS AMERICANUN F NC FELY OPUS CIMBRIUS	SA PPL I 79 2 1		PTH 0 7.1 13.0 4.9	2.7-			o				7 •2-	7.4 TL SL	0	26.3 0.7 0.3 0.3	0.0
UROPHYCIS SP.	209	26	3.4	2.3-	5.5	NL	2	23		3.1	1.7-		0	70.4	0.0
MEPLUCCIUS RILINEARIS CENTROPRISTIS STRIATA PEPRILUS TRIACANTHUS PEICNOTUS CARCLINUS	4 4 809	4 4 25	5.8 5.4 3.6		6.1 5.6 5.9	SL	0	2 <b>3 1</b>		3.2	2.4- 5		0	0.7 1.3 1.3 269.6	0.0
CITHARICH THYS ARCTIFRONS ETREPIS MICROSTOMUS PAPALICHTHYS DENTATLS HIPPOGLOSSINA DBLINGUS SCOTHTHALMUS JOUDSUS ADDITIONAL LARVAE CAUGHT				3.9-	6.3	SL SL S L	0	24 6 2 1 2	6 2 1	8.8 5.6 7.1 4.8	4.4-1: 6.1-1: 3.8-	1.7 SL	o	23.6 7.4 1.6 7.3 1.6	0.0
	UNIDEN														
C 6 C4 LD REEXCORTLA TYRANNUS	SA MPLI 29		PTH C	-15M 3.9-	5.1	TL	• • • •	S AM PL	ING CE	PT + L	8-33M 6-3-1	0.3 TL		10 .7 0.7	
FNGRAULIS EUR STOLF CERATOSCOFELUS MADEFENSIS LCPHIUS AMERICANUS LIECEHYCIS SP.	2 625	2 21		7.5- 2.2-				2 2 1 97	2 1	10.0 10.6	15.e-16 9.5-16	7.5 SL TL		1.3 0.3 219.8	
MERLUCCIUS BILINEARIS PERRIUS TRIACANTHUS PERCUNTUS CARCLINUS CITEARICH THYS ARCTIFEONS	351 25	28 25	3.3	2.5-	4.0	SL	0	1 1 50 129	1 24 2 25		2.2- 3	5.6 SL	1	0.3 0.3 122.0 50.5	0.3
FIPEOSLOSSINA DELANCUS SCOPHTHALMUS AOUNNUS ACOITEDNAL LARVAF CAUCHI	13 CYCLDT UNIDEN	HE NE		2.9-	5.2	SL SL		C PH I C	10 IIDAE	6.0	3 -7- 8	8.0 SL		7.2 0.3	
		• • •		• •	• •	• •			• • •						
H L C3 10 PRICNOTUS CAROLINUS A OOIT DONAL LARVAE CAUGHT		2 IDAE	5.0		5.5	SL								0.2	
			• • •	• •	• •	• • •			• • •	• • •					
H 2 C3 10 ENGRAULIS EURYSTNIE PRIENDTUS CAPELINUS ETPEPUS MICROSTOMUS	13 2	1 13 2	7H 0 12.8 3.8 5.2	2. t- 4.0-	5.6 6.3	SL	. <b></b>							0.1 1.6 0.2	
H 3 C3 LO PRIOND TUS CARTUINUS FTREPUS MICPOSTOMUS PARALICHTMYS CENTATUS ACOST DINAI LARVAE CAUGM	16	7 16 1CAE	3.6 4.3	1.9-			25							2.1 4.8 0.0	7.6

TABLE 3. (continued)		
CPUISE NATE C6612 1966 CTA. O M SPECIES ANALYZEC + 4 C3 10 A FE VOORTI A TY PANNUS UPOPHYCTS SP. PETINDTUS CARCLINUS F TR CPUS MICROSTOMUS PAR ALICHT MYS DENTATES ACOLTIONAL LARV AF CAUCHT	NUMBER LENGTHS IMM1 NO. TOTAL MERS. MEAN RANCE MEAS. EGGS SAMPLING OFFIH 0-15M  10 10 10.2 8.0-11.3 TL 14 5 3.2 2.7- 3.7 NL 38 15 4.2 2.8- 5.2 SL 13 13 5.0 3.7- 8.0 SL  OPHIDIICAE SERRANILEE	NO. PER 10M LIFVIE ECGS 3.0 4.2 11.5 3.9 0.0 13.6
	UNIDENTIFIED	
F 5 C3 LO  REF VOORTI A TY PANNUS  UPO MYCIS SP.  PEPEILUS TRIACANT MUS  PPICNOTUS CARCLINUS  C IT HAR ICHTHYS ARCTIFPONS  F TO FOUS MICPOSTOMUS  PARALICHTHYS DENTATIS  HIPFOGLOSSINA DBLINCUS  ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M  1 1 7.8 TL  46 31 3.8 2.5- 7.9 ML  15 15 3.9 2.5- 5.4 SL  2 2 6.0 4.3- 7.6 SL  8 8 7.2 3.4-10.3 SL  1 1 7.2 SL  DPHIDIIC/E  SAMPLING CEPTH 18-33M  5 5 7.4 6.9- 8.0 TL  1 1 7.0 SL  1 8 16 2.1 2.0- 4.5 NL  1 1 7.0 SL  2 2 3.5 3.2- 3.7 SL  2 2 5.5 4.7- 7.0 SL  0  DPHIDIIDAE	2.0 19.8 0.3 7.2 1.3 3.1 0.0 1.7
H 6 C3 10 ENGRAULIS EUR YSTOLE CERATOSCOPELUS MADERENSIS UROPHYCIS SP. MERLUCCIUS BILINEAR IS PRICNOTUS CARTLINUS CITHARICHTHYS ARCFIFRONS FIRCPUS MICROSTOMUS HIPPOSLOSSINA DBLUNCLS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M  2 2 8.6 7.9- 9.3 SL 232 34 4.9 2.4- 8.3 NL  3 3 2.9 2.9- 3.0 SL 79 25 6.2 3.2-10.7 SL 1 1 5.9 8 8 4.6 3.6- 5.9 SL  LOPHITFORMES  CPHIDITICE  UNIDENTIFIED  SAMPLING DEPTH 18-33M 4 1 E.7 15.6-21.C TL 4 1 E.7 15.6-21.C TL 8 8 9.6 7.2-11.9 SL 8 1 9.6 7.2-11.9 SL 2 1 1 15.0 NL 0  12 1 1 5.0 NL 0  CPHIDITORE  GOBITORE  GOBITORE  UNIDENTIFIED	1.3 3.3 54.6 0.3 C.7 1.0 64.0 0.3 4.4
H 7 (3-10  FNC SAULIS EUR YSTOLF  CERATOSCOPELUS MAHE FENSIS  UFORMY CIS SP.  CITMARICH THY SARCLIFFICHS  HIPPOGLOSSINA OBLONCES  ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M 5 5 17.7 11.2-22.6 TL 4 4 9.3 7.7-11.6 SL 68 80 4.C 1.8-8.6 NL 15 14 6.3 3.2-17.5 SL 7 7 3.3 2.7-4.5 SL  CPHIDIFORMES CHIOLOGY	1.8 1.9 22.7 5.0 2.3
J 1 C1 10	SAMPLING DEPTH 0-6M	
ACDITIONAL LERVAE CAUCHT		
J Z C1 10 BREVOURTIA TYFANNUS ANCHOA HEPSETUS PET CNOTUS CARCLINUS ETROPUS MICROSTOMUS SYMEHURUS SP. ADDITIONAL LARVAE CAUCHT	SYNGNATHICÆ BLENNIICÆF TPIGLICÆF UNIGENTIFIED	0.1 0.1 0.4 C.6 0.4
J 3 (1 10 PREVIORT 14 TY FANNUS UROPHYCIS SP. PFICNOTUS CAROLINUS ETFORUS MICROSTOMUS ADDITIONAL LARVAF CALGHT	SAMPLING DIPTH C-6M 2 2 3.9 3.5-4.4 TL 2 2 8.1 7.5-8.8 NL 1 1 4.9 SL 12 12 5.0 2.7-8.5 SL CPHIDITICAE TPIGLICAE	0 .2 0 .2 0 .1 1 .5
J 4 C2 10  UFCFHYCIS SP.  PRICHD TUS CARCLINUS CITHARICHTHYS ARCHIFRONS ETROPUS MICROSTOMUS HIFFOGLOSSINA DBLON (US ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M 6 4 5.2 2.7- 6.5 NL 4 4 4.0 3.5- 4.5 SL 1 1 7.0 SL 15 15 7.7 4.6-11.1 SL 1 1 5.2 SL	0.7 C.5 0.1 1.8 0.1

TABLE 3. (continued)	132	
CRUISE DATE  CROSS	NUMBER LENGTHS (MM) NO.  TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M  36 26 5.9 4.0- 8.4 NL 2 2 3.6 3.1- 4.1 SL 2 1 21 5.6 2.7-10.8 SL 15 15 8.3 3.9-11.9 SL 4 4 5.0 3.2- 6.4 SL  CPHIDILLE UNIOENTIFIE0	NO. PER 10 M LAFV #E EGGS 10.9 0.6 0.6 6.4 4.5 1.2
J 6 C2 10  UFC PHYCIS SP.  CEN 19 19 PRISTIS STRIA 1A  PEFFILUS TRIA (ANTHIS  PRITANTUS CAPELINUS  CIT HAR ICHTHYS ARCII FRANS  ETROPUS MICROSTOMUS  HIPPOGLOSSINA OBLUNGUS  ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 114 16 6.D 4.5- 8.1 NL 2 2 3.4 3.2- 3.7 SL 55 25 6.1 3.7-10.7 SL 20 20 7.4 4.3- 9.3 SL 7 7 4.6 3.7- 6.3 SL OPHIOIICAE  SAMPLING CEPTH 18-24M 38 3C 5.4 2.5- 8.9 NL 1 1 4.2 SL 1 1 4.2 SL 1 1 4.2 SL 1 1 7.3 4.7-10.3 SL 7 7 6.3 4.7- 7.9 SL OPHIOIICAE	41.1 0.2 0.2 0.6 24.3 7.9 3.3
J 7 C2 10 CERATOSCOPELUS MANEFENSIS URCPHYCIS SP. MERLUCCIUS BILINFARIS CITHARICH THYS ARCHIFRONS A DONIT IONAL LARVAE CAUGHY	SAMPLING DEPTH C-15M SAMPLING CEFT 18-33M 2 2 9.8 7.7-12.0 SL 3 3 11.1 11.0-11.1 SL 8 3 6.8 5.6-7.7 NL 5 4 11.2 6.0-14.0 NL 0 1 1 22.5 NL 0 10 10 7.8 5.2-13.6 SL LCPHIIFORMES GOB: ICAE	1.6 4.1 0.3 4.2
K 1 CL 1G ANCHIA HEPSETUS CENTROPRISTIS STPLATA PEPRILUS TRIACANTHUS SYMEMIRUS SP. ACRITIONAL LAPVAE CAUCHT	SAMPLINC CEPTH 0-15M  1	0.3 0.3 0.3 0.9
K 2 (1 LC PREVOORTIA TYPANNUS ANCHOA HEPSETUS SYMPHIRUS SP. AEDIT (ONA) LARVAE CAUCHY	SAMPLING DEPTH 0-15M 2 2 3.6 3.5- 3.7 TL 1 1 16.5 TL 2 2 7.4 7.2- 7.5 SL OPHIDITE! TRIGLICAE	0.6 0.3 0.6
K 3 CL LD PREVORTIA TYRANNIS UFCFHYCIS SP. MICROPOGON UNDULATUS PFICNOTUS CAPOLINIIS ETRIPUS MICROSTOMIIS SYMPHURUS SP. ACOIT IONAL LARVAE CAUCHT		3.3 0.3 0.3 0.3 7.9
K 4 CL LO UPDEHYCLS SP. PRICHOTUS CAPOLINIAS CITHARICHTHYS ARCII FRONS ETROPUS MICRO STOMUS ADDIT IONAL LARVAE CAUGHT	SAMPLINC DEP TH	1.8 0.9 1.8 1.2
K 5 CL LO  A MC MA HE PSET US ENGRAUL IS EUR YSTOLE UNCENTYCIS SP. CENTROPRISTIS STRAATA LARIMUS FASCIATUS MICROPHOGON UNDULATUS PEPRILUS TRIACANTHUS PPICNOTUS CARCILINIS BOTHIS OCELLATUS CITHARICHTHYS ARCIIFRENS ETREPUS MICROSTOMIS SYACTUM PAPILLOSUM GIYFTOCEPHALUS CYNOGLOSSUS ADDIT FONAL LARVAE CAUGHT	SAMPLING DEP TH	4.3 1.3 7.8 0.2 0.5 0.6 0.2 0.3 0.5 6.5 7.4 0.3

CRUISE DATE  C6612 1966  STA. D.M. SPECIFS ANALYZEG  K. 6. 20. 09  ANCHDA HEPSETUS  FNGRAULIS EUPYSTONE  CERATOSCORPELUS MAMMINGI  UFCFHYCIS SP.  SCCMBEROMORUS CAVALLA  PCTHUS OCELLATUS  CITHARICH THYS ARCTIFRENS  FTPCPJS MICROSTOMUS  SYACTUM PAPILLOSUM  GLYPTTCEPHALUS CYNOGLOSSUS  SYMFHURUS SP.  ADDITIONAL LARVAE CAUGHT	NUMBER LENGTHS INM) NC.  TOTAL MEAS. MEAN RANGE MEAS. EGGS  SAMPLING OEPTH C-15M  24 23 10.6 5.5-15.8 TL  7 7 13.2 6.9-16.9 TL  23 14 3.5 2.1- 4.1 NL  1 1 6.C 2 2 6.2 6.0- 6.5 SL  14 13 5.2 4.0- 6.8 SL  24 24 6.C 3.7- 7.3 SL  6 6 5.8 4.2- 8.6 SL  3 3 7.3 5.3-11.1 SL  CYCLCTHENE SF.  SYNODONTIDAE  RECHACEFCTICAE  OPHIOTIONE  SERRANITAE  GOBILOAE  UNIOENTIFIEO	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN PANGE MEAS. EGGS SAMPLING DEPTH 1E-23M  8 6 11.6 7.0-16.0 TL 6 6 11.6 7.0-16.0 TL 1 1 5.4 118 21 4.3 2.9-5.5 NL  13 12 5.4 3.7-7.9 SL 6 6 5.4 3.4-8.0 SL 2 2 4.7 4.6-4.8 SL 2 2 3C.7 29.8-31.5 SL CYCLOTHONE SP. LCPHIDIDAE SERRANIOAE GOBIIOAE TRIGLIDAE	NO. PER 10M LAFVAE ECGS  9.9 4.1 0.3 46.2 0.3 0.7 8.5 9.2 2.5 0.7 1.6
K 7 30 09 ANCHOA HEPSETLS ENGRALLIS EURYSTOLE OTABHUS SP. UPORHYCIS SP. MERLUCCIUS BILINEAPIS MICROPOGON UNDULATUS BOTHUS OFFLATUS CITHARICH THYS ARCITERONS SYACIJM PAPILLOSUM ACOITIONAL LARVAE CAUCHS	SAMPLINC OFPTH 0-15M 4 4 17.2 16.5-18.2 TL 6 6 20.3 19.3-21.5 TL  1 1 11.0 NL O 1 1 4.2 SL 4 4 4.5 3.8- 5.4 SL  CYCLOTHENES SE CYCLOTHENES SE CARAPIDAE COBIDAE UNIDENTIFIED	SAMPLING DEPTH 18-33 M 1 1 15.8 TL  1 1 4.4 SL 5 4 3.7 2.0- 5.2 NL  SYNODONTICAE CARAPIDAE GCBIICAE TETRADOONTICAE UNIOENTIFIEC	1.5 2.0 0.3 1.7 0.3 0.3 1.3 0.3
1 1 20 05 MICEOPHOCON UNTULATUS SYMPHURUS SP. ACRIT FINAL LARVAE CAUCH  1 2 37 09 ANCHOA HE PSETUS I AR MUS FASCIATUS MICEOPHOCON UNCULATUS FREPUS HICHOSTOMUS SYACTUM PAPILLOSUM SYMPHURUS SP. ACRIT IDNAL LARVAE CAUGHT	UNIDENTIFIED  SAMPLING DEP TH		0.5 0.1
OFHICHTHUS GOMES!  ANCHOA HEPSETUS CERATISCOPELUS MARMING! CIA FHIS SP. NOTCLYCHNUS VALOI VA E HECERYCIS SP. HEMANTHIA S VI VANUS LAR THUS FASCIATUS MICEPPOGIN UNTULATUS SCOMBERDINORUS CAVAL LA PRICNOTUS CAROLINUS BOTHUS CELLATUS ETROPIS MICEPOSTOMUS SYACIUM PAPILLOSUM SYMPHURUS SP. ACOIT IONAL LAPVAE CAUGH!	140 53 7.8 3.1-17.2 TL  1 1 12.9 SL  1 1 4.2 NL  1 1 3.2 SL  2 2 22 3.3 2.8-5.0 SL  1 1 4.7 SL  40 27 3.8 3.1-4.8 SL  2 2 7.8 6.0-9.6 SL  SYNDOONTICAE CPHIOIILE SEPRANICAE PRIACANTHICAE BLENNILLE GOBIOAE  TRIGUIDAE	SAMPLING CEPTH 18-24M  2 2 56.2 44.9-67.5 TL  150 47 1C. C 4.9-20.0 TL  2 2 6. C 5.0- 7.1 SL  2 2 5.5 5.6- 6.2 SL  2 2 5.1 4.7- 5.5 NL  1 1 3.7 SL  1 1 1.1 SL  1 1 6.3 SL  4 4 5.6 7.4-14.4 SL  129 26 5.2 3.3- 7.6 SL  13 12 6.5 5.0-13.1 SL  SYNODENTICAE LOPHIFORMES BREGMACEFOT ICAE OPHIOTIONE URANOSCOPINAF BLENNITOAE CALLIDNYMIDAE GOBIIDAE SCORPAENICAE TRIGLIDAE BALISTIDAE UNIDENTICE BALISTIDAE UNIDENTICE BALISTIDAE UNIDENTICE BALISTIDAE UNIDENTICE BALISTIDAE UNIDENTICE BALISTIDAE	0.3 67.2 0.3 0.3 0.3 0.6 0.3 0.5 19.4 0.2 0.2 1.0 23.1 2.2 3.0

TABLE 3. (continued)	134		
CPUISE DATE  06617 1966  STA. D. M. SPECIES ANALYZED  L. 4. 30.09  ANCHA HEPSETIS  ENGFAULIS EURYSTOFF  CERATDSCOPELUS WAHMINGI  DIA FHUS SP.  HEMANTHIAS VIVANUS  MICEPPOGON UN COLATUS  ALVIS SP.  BCTHUS DEFILATUS  SCEFHTHAL MUS ADUNSUS  SYACTUM PAPILLD SUM  SYMFMURUS SP.  ADDITIONAL LARVAE CAUGH	NUMBER LENGTHS (MM) ND.  IDTAL MEAS. MEAN RANGE MEAS. EGCS  SAMPLINC CEPTH 0-15M  7 6 8.4 6.4-12.0 TL 6 6 7.9 6.8- 9.1 TL 1 I II.2 SL I I 6.6 SL 1 1 7.7 SL 14 14 7.0 4.2- 9.8 SL I I 3.3 SL 6 6 5.5 4.8- 7.2 SL 3 3 12.4 6.6-16.8 SL  I CPHICHTHICAE SYNODONIIDAE LDPHIIFCEMES CPMIOIICAE SERRAN ICAE CARANGIIAE MUGTLIDAE GOBIIDAE TRIGLICAE UNIDENTIFIED	NUMBER LENGTHS (MM) ND. TOTAL MEAS. WEAN PANGE MEAS. EGGS SAMPLING DEPTH 1E-33M  8 8 7.9 4.7-12.6 TI 1 1 5.0 SL 2 2 3.4 3.2- 3.6 NL 1 1 7.7 SL  2 2 5.7 4.8- 6.6 SL OPHICHTHIDAE SYNOCCNT ICAE LOPHIFORMES DPHICIDAE SERRANIDAE LABRIDAE OR SCAPIDAE GOBITCAE UNIDENTIFIED	NO. PER IOM LARVAE EGG S 2.3 4.5 0.3 0.6 0.7 0.3 0.3 0.3 4.7 0.3 2.0
1 5 20 09 ANCHEA HEPSETLS CERATOSCOPELUS MADERENSIS DIATHUS SP. HEMANTHIAS VINANUS RETHIS DERLATUS SYACIUM PAPILLOSUM SYMPHIRUS SP. ACDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M 3 3 13.0 11.3-16.2 TL 1 1 8.9 SL 1 1 5.C SL  7 7 4.6 3.9-5.8 SL 14 14 4.9 3.5-8.5 SL 1 1 5.7 SL  CYCLOTHONE SP. SYNDDONTIC/E SERRANICAE APOGON 11/E CARANGICAE LABRIDAE DR SCARIDAE GOBIIDAE SCORPAENIDAE TETRADCONTIDAE UNIDENTIFIED	SAMPLING DEPTH 18-33M  1 I 6.2 SL 1 1 5.6 SL 16 16 4.9 3.5-8.3 SL 12 12 5.2 3.2-7.3 SL 1 1 13.2 SL CYCLOTHONE SP. SYNDOONT IDAE PARALEPIDICÆ LOPHIFORME S SERRANIDAE APDGONIDAE MALACANTHUS SP. LABRICAE CR SCAPICAE MUGILIDAE GCBIICAE SCORPAENICAE UNIDENTIFIED	1.0 0.3 0.6 0.3 7.4 8.2 0.6
M 1 28 D9 ANCHOA HEPSETUS ENGRAULIS EURYSTOFF MICPOPOGON UNCULATUS PEPPILUS TRIACANTHUS PRICNDTUS CARCLINUS CYCLOPSETTA FIMBPLATA FIFCPUS MICROSTOMUS SYMPHURUS S. ACDITIONAL LARVAE CAUGHT	SAMPLINC CEPTH 0- 6M 2 2 8.3 8.2-8.5 TL 4 3 6.1 5.4-6.5 TL 10 10 4.3 3.6-5.1 SL 1 1 3.3 3 3 6.0 5.0-6.9 SL 2 2 7.2 4.7-9.6 SL 2 2 3.9 2.6-4.1 SL 3 3 10.5 5.0-13.5 SL  DPHICHTFICAE CYCLOTHONE SP. SYNODON 11C AE CYCLOTHONE SP. SYNORATH 1CAE BLENNIL CAE BLENNIL CAE BLENNIL CAE BLENNIL CAE BALISTICAE TET RADCENT IDAE		C.2 0.5 1.2 0.1 0.4 G.2 0.2
M 2 28 09 ANCHOA MEPSETLS ENGRAULIS EUPYSTOLE BENTHOSEMA SUPORBLITZLE MICPOPOGON UNDULATUS PEPFILUS TRIACANTHUS PPICNOTUS CAPCLINUS BCTHUS DCELLATUS ETROPUS MICROSTOMUS SYACTUM PAPFILLOSUM SYMFHURUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M  17 16 7.5 4.7-11.7 TL  90 36 6.2 3.9- 9.2 TL  1 1 10.0  3 3 4.8 3.6- 7.1 SL  2 2 3.3 3.0- 3.6 SL  I I 4.0  1 1 5.2  6 6 4.6 4.0- 6.9 SL  2 2 5.6 5.4- 5.7 SL  4 4 4.7 3.7- 7.2 SL		2.1 10.9 0.1 0.4 0.2 0.1 0.7 0.7

COULSE DATE  CRAL2 1966  STA. D.M. SPECIES ANALYZEC  B. 3. 28 09	NUMBER LENGTHS (MM) NO. IDTAL MEAS. MEAN RANCE MEAS. EGCS SAMPLING DEPTH C-15M	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS	NO. PER 10M LAFVAE EGGS
CFHICHTHUS GCMEST  ANCHAL HEPSETUS  ENCRAULIS FURNSTOLE  CFRATOSCOMELLS MAHEFENSIS  CTAFFUS SP.  HEMANTHIAS VIVANUS  LAR MUS FASCIATUS  MICFORDOON UNDULAFUS  ALXIS SP.  SCCARF FRACPUS CAVALLA  PRIMOTUS CAPICLINUS  RITHUS MELLATUS	2 2 44.1 42.0 - 45.2 TL 266 49 9.2 4.3 - 17.8 TL 64 34 7.7 4.4 - 14.0 TL 1 1 4.7 SL 2 2 4.2 3.7 - 4.6 SL 6 6 3.6 2.7 - 5.4 SL 165 162 3.6 2.7 - 4.6 SL 1 1 11.3 SL 3 3 11.0 8.9 - 12.5 SL 1 1 3.6 5 5 1 4.2 - 6.7 SL		0.6 60.6 19.4 0.3 0.9 0.6 1.8 50.0 0.3 0.9
CYCLOPSETTA FIMARIATA FTE(PIS MIGROSTOMIS SYACTUM PAPILLOSUM SYMPHURUS SP.	2 2 5.7 5.5- 5.8 St. 50 25 5.8 4.1- 8.9 St. 33 32 5.3 3.3-11.2 St. 12 10 8.5 5.9-12.1 St.		0.6 15.2 10.0 3.6
A CO I T [ON AL LAPV AE CAUCHT	SYNDOON ICAE CPHIDIICIF SERRANICAE CARANGILAE SCIAENILAE SCIAENILAE SPHYRAENICAE URANCSCOFICAE BLENNIICAE CALLIDNYMICAE GOBIIDAE TRIGLICAE EALIST ILAE UNIDENTIFIED		
M 4 ZP C9 ANCHDA HEPSETUS ENGPAULIS EURYSTOLE	SAMPLING CEPTH D-15M 236 4C 7.5 4.7-16.C TL 8 8 9.7 3.9-16.5 TL		71.5 2.4
CEPATOSCOPELUS MADERENSIS DIA HUS SP. I AMPANYCTIS ALA TUS CR. PHOTONGTIS MICEOPRIGON UNITULATUS ALXIS SP. EUTFYNNUS ALLETTERA TUS SCORRE FEMERUS CAVALLA PRIONTIUS CAPICUNUS ROTHUS DOCELLATUS	1 1 9.4 St 1 1 6.3 St 5 1 1 7.6 St 29 29 3.5 2.5- 4.4 St 2 2 5.3 4.7- 6.5 St 1 1 6.4 St 9 9 6.6 5.1-11.4 St 4 4 5.4 4.8- 5.8 St 6 6 4.6 2.7- 7.7 St 2 2 7.7 6.6- 8.7 St		0.3 0.3 0.3 8.8 0.6 0.3 2.7 1.2 1.8 0.6
C YCLOP SELTA FIMBRIATA S YACIJM PAPIILOSUM S YMTHURUS SP. ADDITIONAL LARVAE CALGHT	34 23 5.2 2.6-11.7 St. 1 1 4.3 St.		10.3 D.3
	LARPIDAE OR SCARIDAE SPHYPAENICAE URANCSCCSIFAE BLENNITCAE CALLIONYMICAE GOBIIDAE TRIGLIDAE UNIDENTIFIED		

CRUISS DAYS		
CRUISE DATE DEELZ 1966 STA. O.M. SPECIES ANALYZEO M.5. 29 09 MYRICHTHY'S SP.	NUMBER LENGTHS (MM) NO. TO TAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 0-15M  SAMPLING DEFTH 18-33M  1 1 51.C  TL	NO. PER 10 M LARVAE EGG S
OPHICHTHYS SP.  OPHICHTHUS GOMESI SARCINELLA ANCHOVIA ANCHOA HE PSETLS ENGRAULIS ELRYSTOLE CERATOSCOPELUS MADEFENSIS CERATOSCOPELUS MARMINGI DIAFHUS SP. LAMFANYCTLS NCBILFS	1 1 51.C TL 2 2 11.C 10.7-11.4 TL 4 4 11.3 6.9-15.5 TL 523 86 7.5 3.0-16.4 TL 57 3C 6.8 3.1-9.2 TL 2 2 6.3 6.2-6.4 SL 3 3 5.7 5.5-5.8 SL 1 1 4.5 5L 2 2 11.1 5.4-12.8 SL	0.3 0.3 1.9 175.5 19.0 1.6 0.3 0.3
FEMANTHIAS VIVANUS LARIMUS FASCIATUS MICROPOGON UNOULATUS ALKIS SP. ELTHYNNUS ALLETTEMATUS SCCMEEROMORUS CAVALLA THUNNUS ALBACARES OF ALALUNGA PRIONDTUS CARCLINIIS BOTHUS CCELLATUS CYCLOPSETTA FIMBRIATA FTROPUS MICROSTOMUS SYACTUM PAPILIDSUM SYMPHURUS SP. ADDITIONAL LARVAE CAUGHT	6 5 4.4 3.0-4.8 St 1 1 2.2 St 5 5 3.3 2.8-3.7 St 1 1 5.5 St 2 2 6.9 4.1-9.7 St 1 1 5.7 St 1 1 5.6 St 2 2 6.2 4.8-7.7 St 3 3 4.4 3.5-4.8 St 10 10 9.0 3.2-14.6 St 1 1 3.7 St 1 1 3.7 St 2 2 3.2 2.7-3.6 St 1 1 1 4.5 2.7-7.2 St 5 5 5.0 3.0-8.9 St 6 6 8 7 5.0-11.5 St	2.0 0.3 3.5 1.0 0.3 5.3 0.3 1.6 15.0 2.3 0.7 26.0 2.0
	BALISTIDAE TETRADOONTIDAE UNIOENTIFIEC	
N L 29 09 CFHICHTHUS GOMEST ANCHOA HEPSETLS LARIMUS FASCIATUS MIC ROPPOGON UNCULATUS PRIONITUS CAPOLINUS SYACIUM PAPILLOSUM ADDITIONAL LARVAE CAUGHT	SAMPLING DEP TH	0.1 10.2 0.2 2.1 0.6 0.1
N 2 29 09 ANCHOR MEPSETIS LAMFANYCTUS ATER MICFOPOGON UNDULATUS FLITYYNUS ALLETTERATUS SCERRERCWCRUS CAVALLA RCTHUS DCELLATUS SYACIJM PAPILLOSIJM SYMPHURUS SP. A001T JONAL LARVAE CAUGHT	SAMPLINE OFP TH	5.2 0.3 0.6 0.9 0.3 0.3 0.3

TABLE 3. (Continued)			
CRUISE PATE	******* LARVAE ******** ***	*******	2
D6617 1966			10. PER 101
STA. D.M. SPECIES ANALYZED	TOTAL MEAS. MEAN RANGE MEAS. FGCS TOTAL	AL MEAS. MEAN RANGE MEAS. EGGS LA	RVAE EGG S
k 7 79 09	SAMPLING DEPTH C-15M		
AFTERICHTUS KENDALLI	1 1 55.5 TL		0.3
WYR TEHTHYS SP.	1 1 55.5 NL		0.3
OPHICH THUS GCMESI	1 1 65.3 Tt		0.3
ANCHOA HEPSETLS	112 °3 8.9 4.0-17.8 TL		23.9
1 ARTHUS FASCIATUS	3 3.5 3.2- 3.7 SL		0.9
M TC RUB DICUN UN DULATUS	21 21 4.0 3.2-4.6 SL		€.4
SCEARE REMERUS CAVALLA	1 1 5.0 SL		0.3
PRICTOTUS CARCLINES	3 3 4.5 4.3- 4.7 SL		0.9
PITHIS OCELLATUS	2 2 5.1 5.0- 5.1 St		0.6
CYCLOPSETTA FIMBRIATA	I 1 4.5 SL		0.3
SYACIJY PAPILLOSUM	12 12 4.9 2.2+13.2 SL		3.6
ADDITIONAL LARVAE CAUCHT			
	SY NODCATIC 4F		
	LOPHITECRMES		
	CPHIDITE AF		
	SERRANICAE		
	CAPANGILLE		
	LABRIDAE CE SCARICAE		
	PLENN LICAE		
	CALL ICNYMICAE		
	GOBIDAE		
	TR ICHIUR ICAE		
	TRIGLICAE		
	BALISTICAE		
	UNIDENT IFIED		
k 4 29 ng		PLING DEPTH 18-33 M	
ANCHOA HEPSETES	4 4 10.9 8.5-12.5 TL 2	21 18 8.9 4.5-16.5 TL	8.2
MALLUOFICTE		2 2 4.3 3.7- 5.0 SL	0.7
RENTHOSEMA SUPORBLIALE		1 1 5.6 SL	0.3
DIAPHIS SP.		5 5 5.5 4.1- 8.5 SL 1 1 6.3 SL	1.7
H YG (PHUM FEINHARDII HEMANTHIA 5 VI VANUS		1 1 6.3 SL 1 1 4.1 SL	0.3
MICECPOGON UN CIL ATUS		3 3 4.1 3.7- 4.3 SL	1.0
SCE ME ROMORUS CAVALLA	3 3 8.3 7.9- 8.5 SL	3 3 411 311 413 SE	1.0
PRIMITUS CARD INHS	3 3 0.3 1.7 0.7 3.	4 4 4.5 4.4- 4.6 SL	1.3
RICTHUS OCELLATUS	12 11 5.1 3.9- 6.8 SL 1	12 10 5.0 2.6- E.3 SL	7.6
CYCLOP SET TA E IMBRIA 14		2 1 7.2 SL	0.7
SYACIUM RAPILIDSUM	8 7 7.2 5.2-11.7 SL		12.4
CYMPHURUS SP.	4 4 8.6 7.2-10.8 SL	8 7 P.F 6.3-11.4 St	3.9
1 COIT ICNAL LARVAE CAUGHT	I MURAENICAE OPHI	ICHTHICAE	
	SYNDDONTIC#E SYNU	JDONT1CAE	
	LOPHITECEMES PARA	AL EPIOIFAE	
	SERP AN ICAE LCPH	HITEORMES	
		I C I I DA E	
		APICAE	
		RANIDAE	
		ANGIDAE	
		RICAE DR SCARICAE	
		LIONYMIDAÉ	
		ITCAE RPAENICAE	
		GL IDA E	
		ISTIDAE	
		RADDONTILAE	
		DENTIFIED	

IMB	LE 3. (continued)		
CRU 066 STA N 5	ISE DATE 12 1966 . D M SPECIES ANALYZED	NUMEER LENGTHS (MM) NO.  NUMEER LENGTHS (MM) NO.  SAMPLING OEP TH 0-15M  3 3 1.7 23.0-44.0 TL  1 1 43.6 1L  1 1 1 6.7 4.5- 9.7 TL  1 1 8.4 5L  1 1 8.4 5L  1 1 8.4 5L  2 2 8.1 7.1- 5.2 SL  1 1 8.4 5L  1 1 8.4 5L  1 1 8.4 5L  2 2 8.1 7.1- 5.2 SL  1 1 6.7 5.2 SL  1 1 6.9 8.2 SL  2 2 6.5 6.5- 6.6 SL  3 3 3 5.6 5.5- 5.6 SL  4 8 6 4.5 3.2- 5.8 SL  1 1 6.7 5L  2 2 7.7 5.4-10.1 SL  48 25 4.3 2.4- 7.7 SL  3 3 5.6 5.5- 5.6 SL  1 1 6.7 5L  2 2 7.7 5.4-10.1 SL  48 25 4.3 2.4- 7.7 SL  3 3 5.6 5.5- 5.6 SL  4 8 10 4.2-14.4 SL  3 3 5.6 5.5- 5.6 SL  4 8 25 4.3 2.4- 7.7 SL  5 4 8.0 4.2-14.4 SL  4 8 25 4.3 2.4- 7.7 SL  5 5 4 8.0 4.2-14.4 SL  4 8 25 4.3 2.4- 7.7 SL  5 5 4 8.0 4.2-14.4 SL  4 8 25 4.3 2.4- 7.7 SL  5 5 4 8.0 4.2-14.4 SL  4 8 25 4.3 2.4- 7.7 SL  5 7 8 8 6 6 4.5 3.2- 5.8 SL  6 1 1 6.9 5.5- 5.6 SL  7 8 8 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	NO. PER 10M LAPVAE EGGS  1.2 0.6 4.3 0.6 1.0 0.3 0.7 0.3 0.7 1.0 0.3 0.3 0.7 1.0 42.8 10.4
FI	. 20 1 0 ANCHIA HEPSETIS MICEOPOGON UNCULATUS ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C- 6M  1 I 10.3  7 6 4.6 3.9- 5.7 SL  CPHIOIIC A  ATHERINICAE  UR ANDS COPICAE  REENNIIC F  TRIGLIDAE  UNIDENTIFIED	0.1 0.8
P 2	20 10	SAMPLING DEPTH 0- 6M	0.3
	ANCHOA HE PSETUS MICFOPOGON UNIQUATUS PPICNOTUS CAROLINUS ETFOPUS MICPOSTOMUS A ODITIONAL LARVAE CAUGHT	SYNGNA THIOAE SPARIOAE BLENNIII LE TRIGLICAE UNIOENTIFIEO	0 • 2 3 • 5 0 • 9 0 • 2
• •		CAMBILLO OFFIT. F. CH.	
P 3	3 20 10 ANCHOA HEFSETLS LAR MUS FASCIATUS MICFOPOGON UNCULAIDS PRIENCTUS CARC, INIS ACOIT MNAL LARVAE CAUGHT	SAMPLING DEPTH C- 6M 3 3 15.2 9.3-18.8 TL 1 1 5.7 SL 6 4 5.0 4.1- 5.8 SL A 8 7.3 5.2- 8.1 SL  OPHIDIIDAE SYNGMATHICAE URANDSCOFICAE BLENNIICAE CALLIONYMICAE COBIIDAE TRIGLICAE UNIDENTIFIED	0.4 C.I 0.7 1.0

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COUJSE DATE  OFFIZE 1946  STA. D. M. SPECIES ANALYZED  F. 4. 20 LO  FLORS SAUPUS  CALLEPHELYS OFFRYAS  MYRICHTHY'S SP.  MYRIPHIT'S DIVICIATUS  OFFICINTUS GENEST  ENGRAULIS FURNSTHE  LEFM'S FISCITUS  OFFICINTUS CARCLIBUS  OFFICINTUS CARCLIBUS  OTHUS OF ELLATUS  CYCLEPSETTA FIMPHATA  ETROPUS MICHOCHOMUS  CYACIJM 2APILIDSUM  CYMENUPUS SP.  AUDITIONAL LARVAE CAUGHT	NUMBER LENGTHS IMM! NO.  TOTAL F45. WEAK PANCE MEAS. EGGS  SAMPLING DEPTH C-15M  1 1 26.5  1 1 26.5  1 2 2 36.7 33.0-40.5 NL  2 2 42.6 42.2-43.0 TL  2 2 36.7 33.0-40.5 TL  4 4 58.5 41.5-74.5 TL  14 14 15.6 6.0-27.9 TL  3 3 5.8 5.1-6.5 SL  11 1C 11.6 5.9-17.5 SL  1 1 4.7 SL  1 1 7.2 SL  18 16 10.1 6.3-13.5 SL  1 1 7.2 SL  18 18 10.1 6.3-13.5 SL  1 1 1 7.2 SL  18 18 10.1 6.3-13.5 SL  19 FINE COULEFRIA SP.  SYNODON TIDAE  CARAPICAE  CARAPICAE  EYNON TICAE  CARANSICAE  CARA	NUMBER LENGTHS (MM) ND. TOTAL MEAS. MEAN PANCE MEAS. PGGS SAMPLING CEFTH L8-24M  1 1 3.9 SL 3 3 4.6 3.6- 5.5 SL 2 I 9.1 SL  CCNGRIDAE SYNODONTICAE BREGMACEROTIDAE OPHICITOAE CALLIGNYMIDAE GOBIICAE TRIGLICAE UNIDENTIFIED	NO. PER 10M LARVAE FGGS  0.3 0.6 0.6 0.6 1.3 4.5 0.2 1.7 3.9 0.3 5.8 0.3
F 5 20 10 FINGPAULIS EURYSTOLF CERITOSCOPELUS MADERENSIS CERITOSCOPELUS WARMINGI OTAPHUS SP. HEMANITHIAS VIVANUS MICHPOGON UN DULATUS ALKIS SP. RETHUS OFFILATUS CYCLEPSETTA FIMBRIATA ETRIPLIS MICPOSTOMUS SYACIUM PAPILIOSUM SYMEHURUS SP. ADDITIONAL LARVAE CAUGHT	SAMPLINE DEPTH C-15M 7 2 12.1 5.6-18.6 TL 1 1 6.4 1 1 8.7 SL 8 8 6.1 4.1-8.8 SL 1 1 3.5 9 7 6.3 4.7-7.9 SL 1 1 9.0 SL 52 22 6.4 3.1-11.1 SL 2 1 5.5 SL 41 4C 5.7 3.4-12.3 SL 5 3 9.3 4.1-12.5 SL	SAMPLING CEPTH 18-33M 2 2 13.5 5.8-21.2 TL  8 6 5.6 4.3- 7.1 SL 5 3 4.6 3.7- 5.2 SL 1 1 4.3 SL  24 16 5.4 4.2- 6.5 SL 1 1 5.0 SL 8 7 5.6 2.4- 9.3 SL 3 3 5.5 3.5- 8.2 SL  SYNODONITICAE OPHIFORMES BREGMACEROTICAE OPHIGIOAE CARAPIDAE SERRANICAE LABRIDAE OR SCARICAE BLENNITDAE CALLIONYMIDAE GOBIIDAE UNI DENTIFIEC	2 .8 0 .3 0 .3 5 .1 0 .3 4 .4 0 .3 0 .3 23 .6 0 .7 0 .3 15 .0 2 .5

TABLE 3. (continued)	140		
CRUISE DATE D6614 1566 STA. D M SPECIES ANALYZED A 1 (4 12	**************************************	**************************************	NO. PER LOM Larvae eggs
CLUPEA HARENGUS HARENGUS GADLS MORHIA MERLUCCIUS BILINEARIS AMMCCYTES SP. PARALICHTHYS DENTATUS	27 23 20.8 10.4-25.0 Tt 2 2 4.9 4.6- 5.2 St 1 2 1 6.5 Nt 0 11 11 5.7 5.1- 6.2 Tt 3 3 7.9 5.0-11.5 St 0		1.6 0.1 0.1 0.0 0.7 0.2
A 2 04 12 CLUPEA HARENGUS HARENGUS CACUS MORMJA MERLUCCIUS BILLINEARIS ADDITIONAL LARVAE CAUGH	SAMPLINC DEPTH 0-15M 5 5 14.3 8.1-22.5 TL 2 2 4.0 3.5- 4.4 SL 0 2 2 5.6 5.4- 5.8 NL 0 SYNGNA THIDAE SPARIDAE		1.5 0.6 0.0 0.6 0.0
	• • • • • • • • • • • • • • • • • • • •		
A 3 C4 12 CLUPEA HARENGUS HARENGUS FNCFELYODUS CIMBRIUS GADUS MORHUA MERLUCCIUS BILLINFAPIS PARALICHTHYS CENTATUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M 5 5 21.4 18.8-24.4 TL 0 8 8 4.1 3.7- 4.4 SL 73 2 2 5.9 5.9- 6.0 NL 0 1 1 7.0 SL 0	6 6 4.3 3.7- 5.4 SL 85 1 1 3.1 NL 0	3.0 0.5 0.6 3.4 0.8 0.0 0.3
A 4 (4 12 CLUFFA HA RENGUS HAR EN CUS ENCHEL YOPUS CIMERIUS GADLS MORHUA UFOFHYCIS SP. MER LUCCIUS BILINEAPIS PARALICHT MYS CENTATIS	SAMPLING OLPTH 0-15M 17 17 17.6 13.7-24.4 TL 1 1 3.9 SL 0 5 5 5.4 4.9-5.7 NL 0 6 6 5.3 4.1-8.6 SL 0	2 2 4.6 2.9- 6.2 SL C 1 1 4.4 6 6 5.0 4.2- 6.4 NL O 15 15 4.5 3.3- 6.8 SL O	8.3 1.5 0.0 0.3 c.C 0.2 2.5 0.0 4.3 c.C
A COLTIONAL LARVAE CAUCHT		UNI DENTIFIEC	
A 5 C4 12 CLUFEA HARENGLS HARENGUS ENCIFELYOPUS CIMBRIUS GADLS MORHUA UROPHYCIS SP. MERLUCCIUS BILINEARIS PARALICHTHYS DENTATLS	SAMPLING DEPTH 0-15M 23 23 16.4 10.6-21.5 TL 1 1 4.6 SL 0 1 1 7.6 SL 0 2 2 8.4 8.1-8.7 NL	2 2 5.1 4.2- 5.9 St 0 3 3 4.9 4.1- 5.5 Nt 0	16.2 1.0 0.0 1.0 0.0 0.7 1.0 0.0 0.3 0.0
A 6 C4 12 CLUFEA PARENGUS HAR ENGUS ENCHELYDPUS CIMBRIUS GADUS MORHUA PELLACHIUS VIFENS MERLUCCIUS BILINEARIS	SAMPLING DEPTH 0-15M 30  20  16. C  11.9-19.9 TL 1  1  6.1  SL  0 7  7  4.0  3.4- 5.3 SL  1 4  4  6.0  5.1- 6.6 SL  0 3  3  6.3  6.0- 6.6 NL  0	6 6 3.7 3.2- 4.1 SL 2 2 2 5.5 3.9- 7.0 SL 0	22.7 0.3 4.1 1.0 1.9 C.0 1.6 0.0
A 7 C4 12	SAMPLING CEPTH 0-15M	SAMPLING DEPTH 18-33M	
CLUPEA HARENGUS HARENGUS PCLIACHIUS VIFENS	1 1 9.1 St 0	3 18.3 17.5-18.8 TL	1.0
P 1 C3 12 CLUFEA HARENGUS HARINGUS FNCHEL YDPLS CIMBRIUS GACUS MORMA MERLUCCIUS BILINEARIS AMMODYTES SP. PERFILUS TRIACANTHUS PARALICHTHYS DENTATUS SCGFHTHALMIS AOUDSUS	SAMPLING CEPTH C- 6M 6		0.7 0.2 0.0 0.4 1.5 0.1 0.0 5.0 0.1 0.2 0.0
P P C3 12 CULFEA HARRINGUS HARRINGUS ENCHEL YOPUS CIMBRIUS GADUS MORHUA PCLLACHTUS VIFENS MERIUCCIUS BILLINFARIS ETRIPUS MICROSTOMUS PARALICHTHYS DENTATUS SCCEPTHALMUS ADUDSUS	SAMPLING DEP TH C-15 M 6 6 17.3 12.0-23.0 TL 1 1 5.6 St 0 8 7 4.2 3.4-5.3 St 51 1 1 3.6 Nt 0 1 1 5.0 St 0 6 6 4.2 3.7-5.2 St	1 1 4.2 SL 0	3.3 0.5 2.9 0.5 0.6 0.3 0.2 0.0

TABLE 3. (continued)				
CRUISE DATE PAG14 1966 STA. D.M. SPECIES ANALYZEC B.3. (3.12	NUMBER LENGTHS IMM) NO TOTAL MEAS, MEAN RANGE MEAS. EC SAMPLING DEPTH C-15M		TOTAL MEAS. MEAN PANGE MEAS. EGGS LAFVAE SAMPLING DEPTH 1E-33M	PER LOM EGGS
CLUFFA HAPENGUS HAP ENGUS ENCHELYOPUS CIMBRIUS GAOUS MORHUA	3 3 23.7 21.8-25.0 TL 2 2 5.5 5.4-5.6 5L 10 9 4.4 3.9-5.7 SL	0 59	5 5 21.0 18.8-23.9 TL 2.6 0 0.7 9 9 4.4 3.8- 5.3 SL 45 6.0 1 1 2.5 SL 0 0.6	0.0 32.1
R(LLACHIUS VIRENS URDRHYCIS SP. MERLUCCIUS BILINEARIS	1 1 3.4 SL 1 1 3.7 NL 19 18 5.5 3.2- 7.2 NL	0	2 2 7.C 2.7-11.3 NL 1.0 25 25 5.9 4.2-7.6 NL 0 14.0	0.C
AMMENTES SP. ETREPUS MICRESTOMUS PARALICHTHYS CENTATUS SCOPHIHALMUS AQUINUS	1 1 5.1 TL  12 12 7.1 4.0-11.3 SL  9 9 4.9 3.3-7.1 SL	0	0.3 1 1 6.7 SL 0.3 21 21 6.2 3.6-1C.1 SL 0 10.6 14 14 4.5 2.9-6.9 SL 7.4	0.0
		• •		
R 4 (3 I 2 CLUPFA HAPFNGUS HARENGUS FNCHELYOPUS CIMBRIUS GADUS MARHUA	SAPPLING OEPTH 0-15M 15	D 0	SAMPLING DEPTH 1E-23M 27 25 18.7 13.7-23.1 TL 13.5 3 3 3.8 2.8-5.1 SL 0 2.2 1 0.0	0.0 C.3
PCLLACHIUS VIPENS URORHYCIS SP.	3 3.3 3.3- 3.4 SL	Ď	2 2 4.1 3.5- 4.6 SL 0 1.6 1 1 5.5 NL 0.3	0.0
MEPHUCCHUS BILINFAR IS PARALICHTHYS CENTATUS	4 4 4.1 2.9- 6.5 NL 5 5 6.3 5.1- 7.5 SL	0	5 5 8.7 4.5-23.2 NL 0 2.9 2 2 5.1 4.9-5.4 SL 0 2.2	0.C 0.0
P 5 C4 12 CLUPEA HARENG LS HARENGUS FNCFFLYOPUS CIMBRIUS	SAMPLING DEPTH 0-15M 68 37 15.5 11.0-20.0 TL 1 1 4.2 SL	0	SAMPLING DEPTH 18-33M 109 48 14.9 12.0-20.0 TL 56.7 0 0.3	0.0
PELLACHIUS VIRENS	1 1 3.9 SL 2 2 8.8 5.7-11.9 NL	0	1 1 3.7 SL 0 0.6	0.0 C.C
MERLUCCIUS BILINEARIS PARALICHTHYS CENTATLS	1 1 5.5 SL		1 1 6.3 5t 0 0.6	0.0
	SAMPLING DEPTH C-15M		SAMPLING CEPTH 18-33M	
CALLETHELYS PERRYAE Myrcphis punctatus			1 1 67.5 NL 0.3 1 1 67.5 TL 0.3	
CLUFFA HARENGUS HARENGUS MEPLUCCIUS BILINFAR IS ACDITIONAL LARVAE CAUGHI	COSIDAE	0	35 34 15.6 13.0-20.0 TL 20.4 1 1 6.5 NL 0 C.6	c. c
				, <b></b>
P 7 C4 12 CLUPEA HARENGLS HARENGUS ENCHELYOPUS CLWBRIUS GAOLS MORHUA	SAMPLING DEPTH C-15M 8 8 15.7 14.0-18.0 FL	1	SAMPLING OFFTH 18-33M 18 17 16.1 12.C-20.0 TL 8.4 0 C.0 3 3 7.2 5.8-8.1 SL 0 1.0	C. 3
PCLEACHIUS VIRENS	2 2 6.4 4.6- 8.2 SL		5 4 4.7 4.1- 5.1 SL 0 2.3	0. c
C 1 C3 12 CLUFFA HARENGUS HAP ENGUS GADES MORHUA	SAMPLING DEPTH 0-6M 2 2 7.0 1.5-12.5 TL 1 1 3.5 SL	3	0.2 0.1	0.4
UPOPHYCIS SP.  PAPALICHTHYS CENTATUS  SCOPHTHALMUS AQUONUS	2 2 5.5 5.5 - 5.6 AL 1 1 4.4 SL 4 4 5.2 4.4 - 5.8 SL	0	0.2 0.1 0.5	0.0
C 2 C3 L2 RREVORETTA TYRANNUS GADLS MORHUA		248	0.1 2.3	30.1
UFCFHYCIS SP. PRICNOTUS CARCLINUS	2 2 6.3 6.0~ 6.7 NL 1 1 6.0 SL		0 •2 0 •1	
PARALICHTHYS CENTATUS SCOPHITHALMUS ADUDSUS	4 4 4.5 3.8- 6.0 SL 2 2 5.7 5.6- 5.7 SL	0	0 .5 0 .2	0.C
ADDITIONAL LARVAE CAUGH				
( 3 (3.12	SAMPLING DEPTH C-15M		SAMPLING CEPTH 1E-24M	
RRENORETTA TY FANNUS Cluffa Harengls Hwrengus	1 1 21.5 TL 1 1 16.5 TL		0.3	
FNC FELY OPUS CIMBRIUS GADES MORHUA	1 1 14.7 St 6 5 3.0 2.8- 3.4 St	.6 6	0 0.3 2 1 3.5 SL 46 2.2	D.C 24.6
PCLLACHIUS VIRENS UFCFHYCIS SP.	2 l 3.3 SL	0	0 C.6 1 1 3.3 NL 0.2	с. с
MERIUCCIUS BILINEARIS PARALICHTHYS (ENTATUS	6 6 6.1 3.9- 8.7 51	0	1 1 5.1 NL D 0.2 12 12 6.0 3.3- 9.3 SL D 3.8	0.0 0.0
SCOPHITHALMUS ADUNSUS ADDITIONAL LARVAE CAUGH	2 2 7.0 6.5- 7.5 SL	-	8 8 5.C 4.C- 6.0 SL 1.9	
C 4 C3 12 ENCLETY CPUS CIMPREUS	SAMPLING OEPTH 0-15M 1 1 15.5 SL	a	SAMPLING CEPTH 1F- 23M 1 1 4.4 SL 0 0.6	0.0
GADES MORHUA U FC FPY CIS S.P.	4 4 3.8 3.5- 4.1 SL 1 1 6.8 Nt	5	1 1 3.3 St 4 1.5 1 1 5.8 NL 0.6	2.8
MERLUCCTUS BILLINEARIS ETROPUS MICROSTOMAIS	5 5 15.6 4.1-56.9 NL 1 1 5.0 SL	0	8 8 5.C 3.6- 7.4 NL 0 4.2 1 1 4.6 SL C.6	0.0
PARALICHTHYS CENTATUS SCORITHAEMUS AQUINUS	7 7 6.5 4.4- 8.0 SL 8 8 5.1 3.3- 6.9 SL	0	10 10 7.2 3.3- 9.1 St 0 5.4 11 11 5.4 3.7- 7.3 St 6.1	0.0

TABLE 3. (continued)	142		
CPUISE DATE F6614 1966 STA. D. M. SPECIES ANALYZED C. 5. C2 12	*********** LARVAE ********** NUMBER LENGTHS IMMI NO. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLING DEPTH 0-15M	********* LARVAE ************************************	NO. PER IOM LAFVAE EEGS
CEU FEA HARENGES HAR ENCUS ENGRAUETS EUR YSTDEE EADES MORHUA	1 1 10.0 TL 1 1 12.2 TL	0	0.3 0.3 0.0 0.3
UPOPHYCIS SP. MERLUCCIUS BILENEARIS	1 1 3.8 NL 25 25 5.7 3.5- 7.4 NL 0	2 2 1.6 5.4- 9.5 Nt 22 22 5.7 3.5- 8.4 Nt 0	1.0 14.8 C.C
ETREPUS MICRESTOMUS PARALIEHTHYS DENTATES	2	6 6 8.4 6.5-1C.6 St 0	0.7 4.4 C.3
SCC FHTH AL MUS - AQUONUS	3 3 7.0 6.0- 9.0 SL		1.0
[ 6	SAMPLING DEPTH C-15M	SAMPLING CEPTH 18-33M	
ELUPEA HA RENG ES HAR ENGUS ENCHEL YOPUS CIMBRIUS	1 23.0	1 1 18.5 TL 1 1 4.1 SL 0	0.6 0.3 C.C
GADES MORHUA POLLACHIUS VIRENS	1 1 5.7 \$t 0 2 2 3.1 2.9-3.2 \$t 0	1 0 0 1 1 2.7 SL 0	0.6 0.0 0.9 0.0
MERLUCCIUS BILIN FAR IS CITHARICH THYS ARCFI FRENS	19 15 7.3 3.1-33.9 NL 0 1 1 4.8 SL	21 21 5.1 3.1 - 7.7 NE 0 2 2 12.3 11.5-12.6 SL	12.7 0.C
ETRICPUS MICROSTOMUS PARALICHTHYS CENTATES	1 1 8.0 SL 14 14 6.9 4.4- 9.7 SL 0	8 8 5.9 3.2~ 8.4 St O	0.3 6.9 0.0
SCOPHTHAL MUS AQUOSUS ACDITIONAL LARVAE CAUCHT	2 2 4.7 4.4-5.0 SL	8 8 5.6 4.8- 6.2 St. UNI DENTIFIEC	3.3
			• • • • • • • •
C 7 C2 L2 CLUPEA HARENGLS HARENGUS	SAMPLING DEPTH C-15M 13 13 16.6 15.0-21.5 TL	SAMFLING	16 •6
CERATOS COPELUS MADERENSIS	7 7 7.6 6.3 - 9.9 St 1 1 7.2 St	5 5 7.7 6.8- 8.5 SL	3.8 0.3
ENCHEL YOP ES CIMBRAUS	0	2 2 4.6 3.3- 5.8 SL 0 1 1 4.8 SL 0	0.7 0.0 0.3 C.C
PCELACHIUS VIRENS MERIUSCIUS BILINEARIS	17 15 7.1 3.2-12.8 NL 0	7 7 11.6 4.4-43.1 NL 0	7.4 0.0 0.3
CITHARICHTHYS BRAITFRONS PARALICHTHYS CENTATUS	1 1 8.0 SL 0	1 1 8.3 St 0	0.6 0.0
ADDITIONAL LARVAE CAUGH		GOBIIDAE	
C 8 C2 12 CEPATOS CO PELUS MADERENS IS ACOITIONAL LARVAE CAUEHI	SAMPLINC CEPTH 0-15M 16 16 7.2 5.0- 8.9 SL COBIIOAE	SAMPLING DEPTH LE-23M 13	9 - 1
			• • • • • • • •
D E (E 12 RREVOORTIA TYPANNUS CADLS MORHIJA MICROPOGON UNDULATUS	SAMPLING DEPTH 0-6M 2 2 21.7 20.0-23.5 TL 1 1 3.9 St 0 1 1 8.6 St		0 • 2 0 • I 0 • 1
PFI CNOTUS CAPEL ENIS PARALICHTHYS DENTATES SCOFHTHALMUS AQUONUS	2 2 5.8 5.6- 6.0 SL 3 3 11.7 FL.1-12.0 SL 0 4 4 8.3 7.6- 9.2 SL		0.2 0.4 0.5
C 2	SAMPLING DEPTH C- 6M		
ENGFAULIS EURYSTOLE GADES MORHUA	1 1 17.5 YL 5		0.1 0.0 C. 6
PEPFILUS TRIACANTHUS PRICNOTUS CARCLINUS	1 1 50.4 SL 1 1 7.6 SL		0.1 0.f 0.5 0.G
PARALICHT HYS DENTATES SCOFHT HAE MIS ADUDEUS	4 4 10.5 9.3-11.0 St 0 20 20 20 6.5 3.8- 9.7 St		0.5 0.C 2.4
A ODITIONAL FARVAE CAUCH	GUSTIDAE		
0.3 C1.12	SAMPLING DEPTH 0-15M		0.9 16.7
GADES MORHUA PARALICHTHYS FENTATUS	3 3 3.4 3.3- 3.4 SL 55 L6 16 5.2 3.5- 8.6 SL 0		4.B 0.0
SCOPHTHALPUS ADUNSUS ADDITIONAL LARVAE CAUGH:			51 .5
C 4 C2 12 CZCUS MORHIJA	5 5 3.1 3.0- 3.2 SL 52		1.5 15.E 1.8
UPOPHYCIS SP. PAR MICHTHYS CENTATES	6 6 3.5 2.7- 4.4 NL 22 22 5.2 4.1- 6.5 SL 0		6.7 C.C
SCCENTHAL MUS ADUDAUS	190 50 4.6 2.7- 7.0 St		
0 5 C2 12	SAMPLING DEPTH 0-15M	SAMPLING DEPTH 18-24M	0.6 2.9
GADES MORHUA UFCFHYCIS SP.	2 2 3.7 3.7- 3.7 SL 8 30 23 3.5 2.3- 5.4 NL	16 14 4.4 2.5~ 9.2 NL	11.8
CITHARICH THYS ARCTIFRONS FIROPUS MICROSTOMUS	1 1 4.0 SL 3 3 4.9 4.7-5.1 SL		0.3
PARMICHTHYS CENTATUS SCOPHTHALMUS ADUDSUS ACDITIONAL LARVAE CAUGH	59 59 4.8 2.8- 7.3 SL 0 169 50 4.0 2.8- 6.0 SL I SYNGNA THIDAE SEPRANIC FE LNIDENTIFIED	41 41 5.1 3.1-11.0 St 0 105 50 4.1 2.7- 6.2 St	24.8 0.0 68.9

TABLE 3. (continued)			
CRUISE DATE D661 4 1966 STA. D 4 SPECIES ANALYZED F 6 C2 12	NUM EER LENGTHS (MM) NO. TOTAL PESS. HEAD. RANCE MEAS. EGCS SAMPLING DEPTH 0-15M	NUMBER LENGTHS (PMI NO. TOTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH 18-33M	NO. PER 10M LAPVAE EGGS
C LUFEA HARENG LS HARENGUS ENCHELY DRUS CIMBRIUS	2 2 5.2 3.4- 7.0 St 0	2 2 15.2 16.5-2 C. C TL 3 3 5.1 3.7- 6.3 SL O	D.7 1.6 C.C
GADES MORHUA URDPHYCIS SR.	1 1 S.2 St 0 2 2 3.8 3.7-4.0 NL	3 3 5.0 4.7- 5.2 SL 0 8 7 5.3 3.6-15.1 NL	1.3 0.0
MERLUCCIUS BILLNEAR IS	18 17 4.8 3.1- 6.9 NL D	18 17 5.1 2.7-6.5 NL 0	11.4 0.0
RERRILUS TRIACANTHUS CHT FAR ICHTHYS ARCI I FRONS	3 3 6.1 5.4- 6.6 St	1 1 30.0 St 3 3 9.0 S.7-12.1 St	D.3 1.9
ETROPUS MICROSTOMUS Paralichthys dentatls	1 1 6.7 SL 7 7 7.2 4.7-8.9 SL 0	1 1 4.7 St 23 23 5.6 3.7 5.2 St D	0.6 9.8 C.C
SCEPHTHALMUS AQUINSUS	8 8 5.2 4.0- 6.5 SL	56 48 4.9 2.9- 6.7 SL SPAR 10AE	21 -1
ADDITIONAL LARVAE CAUGHT	ı	UNI DENTIFIEC	
C 7 C2 12 CLUFEA HAFENGUS HAR EN CUS	SAMPLING OEPTH C-15M	SAMPLING CEPTH 18-33M	D •3
ENCHEL YOR US CIMBRIUS	1 1 5.4 SL 0	0	0.3 D.0
MERLUCCTUS BILINEAR IS CITHARICH THYS ARCTIFRONS	1 1 6.2 NL D 1 1 6.6 SL	1 1 6.1 NL D	0.6 D.C 0.3
PARALICHTHYS FENTATUS SCCFHTHALMUS AQUOSUS	1 1 3.9 St	2 2 4.5 4.5- 4.6 SL D 2 2 5.6 5.3- 5.8 SL	D.7 C. C
Γ 8 C7 12	SAMPLING DERTH 0-15M	SAMPLING CEPTH 18-33M	
CEUPEA HARENGES HARENGES CERITOS CORPLUS MANERENSES	2 2 18.0 17.0-19.0 TL	3 3 17.0 16.0-17.5 TL 7 6.1 5.4- 6.7 SL	1 •6 2 • 3
UFOFHYCIS SR. PARALICHTHYS DENTATUS	1 1 2.R NL	3 3 7.8 7.1- 8.6 SL 0	0.3 1.0 C.C
* DEALECTION DEGLATES			
F 1 (9 11	SAMPLING DEPTH 0-6M		
REFYDORTIA TYPANNOS Scorhthalmus Adudaus	5 5 19.5 18.5-20.5 TL 2 2 5.8 4.7- 6.8 SL		0 •6 D •2
ADDITIONAL LARVAE CAUGHT			
	SCORPAENICAE		
F 2 (9 11 PRICUTIUS CARCLINUS	SAMPLING DEPTH O- 6M 1 I 26.7 SL		0.1
PARALICHTHYS CENTATUS	4		0.0 0.5
SCOPHTHALMUS AQUONUS ACRITIONAL LARVAF CAUCHT	12 12 5.5 3.3- 7.5 SL T SYNGNATHIDAE		1.0
	COBLIDAE		
£ 3 10 11	SAMPLING DEPTH C+ 6M		
GADES MORHUA	2		0.0 0.2
PARALICHTHYS EENTATUS SCOPHTHALMUS AQUONUS	1 1 8.2 St 27 27 27 4.0 2.9- 5.4 St		0.1 2.2
ADDITIONAL LARVAE CAUGHT	T DPHIOIICAE G0:81104E		
		• • • • • • • • • • • • • • • • • • • •	
F 4 10 11	SAMPLING DEPTH C-15M		2.2
PFICNOTUS CARCLINAS PARALICHTHYS DENTAILS	1		0.3 1.8 5.2
SCORHTHALMUS ZOUDSUS	4 4 3.6 3.0- 4.7 SL		1.7
5.5	SAMOLANG DEGEN	CAMOULING CECTA 10.22M	
F 5 10 11 UROFHYCIS SP.	SAMPLING DEPTH C-15M I 1 4.9 NL	SAMPLING CEPTH 18-33M	0.3
PEPRILUS TRIACANTHUS PETINOTUS CAPCIENUS	4 4 24.0 14.2-42.5 SL 1 1 4.4 SL		1.3 0.3
PARALICHTHYS CENTATES		25	0.0 10.4
F 6 IN 11 DECEMPCES SP.	SAMPLING CEPTH D-15M 11 5 4.5 1.5- 8.2 NL	SAMPLING OEPTH 18-33M 3 3.2 2.5- 3.8 NL	4.3
MERIUCCIUS AILINEARIS PRICOTUS CAROLINUS	1 1 3.6 NL 1	4 1 2. E NL D 1 1 5.2 SL	1.6 0.3 0.3
CITEARICHTHYS ARCTIFRONS PARALICHTHYS DENTAILS	1	3 3 4.7 4.4- 5.4 St 9 9 5.4 3.1- 6.8 St 7	1.3
SCORNTHALMIS AQUONUS	1 1 2.5 St	3 3.2 3.0- 3.3 SL	1.3
F 7 1) 11 UFCEHYCIS SP.	SAMPLING DERTH D-15M 15 12 9.R 6.8-25.0 NL	SAMPLING CEPT F 18-33M	5.0
MERLUCCTUS BILINEARIS PEPRILUS TRIACANTHUS	1 1 29.6 NL D	2 2 5.C 4.C- 6.1 NL C 4 4 30.1 23.6-40.3 SL	1.0 0.0
CITHARICH THYS ARCTIFRONS	2 2 12.8 11.3-14.3 St	e e €.6 5.1-14.3 SL	3.3 0.3 C.C
PARALICHTHYS DENTATES SCERHTHALMIS AQUOSUS	D	1 1 7.0 SL D 1 1 7.6 St	0.3

CRUISE DATE  CR614 1966  STA. D.M. SPECIES ANALYZED  E. 8. 19.11  CERATOSCOPPLUS MADERENSIS	NUMBER LENGTHS (MM) NC. TDTAL MEAS. MEAN RANGE MEAS. EGGS SAMPLING DEPTH C-15M	NUMBER LENGTHS (MM) TOTAL MEAS. MEAN RANGE MEAS. SAMPLING OFFTH LE-23M 1 1 7-2 SL	
CERTUS AMERICANUS URCENYCIS SP. MERIUCCIUS RILINEARIS ADDITIONAL LARVAE CAUGHT		1 1 7.2 SL  1 1 3.8 NL  1 1 6.0 NL  GC811CAE	0.3 0.3 0.9 0 0.6 2.7
			• • • • • • • • • • • • • • • • • • • •
F 1 11 11  PREVIORATE A TYPANNIS  ANCHDA MITCHILLI  MICROPHOGN UNCULATUS  PARALICHTMYS FENTATUS  ADDITIONAL LARVAF CAUGHT	SAMPLING DEPTH 0-6M		0.1 0.2 0.1 0.1
		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
F 2 11 11 PREVOORTIA TYRANNUS ANCHCA MITCHILLI MICERPROGON UNDULATUS PARALICHTHYS CENTATUS SCOPHTHALMUS AQUONUS	SAMPLING CEPTH 0-6M 3 3 20.7 19.5-21.5 TL 6 6 56.0 50.0-60.0 TL 5 5 11.9 9.9-13.7 SL 3 3 11.2 10.5-12.1 SL 0 2 2 7.4 5.4- 9.3 SL		0.4 0.7 0.6 0.4 0.0
F 3 IL 11  RREVOOR TLA TYRANNUS  ANCHEA MITCHILLI  PAPALICHTHYS DENTATUS  SCCENTHALMUS ADUOSUS  ADDITIONAL LARVAE CAUCHT	SAMPLINC CEPTH 0-154 2 2 15.2 15.0-15.5 TL 4 4 62.6 59.5-65.0 TL 2 2 10.5 10.5-10.6 SL 6 6 5.8 5.1-6.7 SL  COBIDAE		0.6 1.2 0.6 0.0 1.8
F 4 11 11 UROPHYCIS SP. CENTROPRISTIS STRIATA PRICHOTUS CARCINAS ETROPUS MICROSTOMAS PARALICHTHYS EFNTATES SCOPHTHALMUS AD UNSUS APPLITONAL LARVAE CAUGHT	SAMPLING DEPTH 0-15M  1 1 3.1 NL  1 1 5.2 SL  1 1 5.5 SL  1 1 4.7 SL  1 1 9.0 SL  6 6 3.7 2.7-5.0 SL  COBIIDAE		0.3 0.3 0.3 0.3 0.3
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F 5 11 11	SAMPLING DEPTH C-15M	SAMPLING DEPTH 18-24M	
GACLS MOREUA URO PHYCIS SP. MERLUCCIUS RILINEARIS PRICNOTUS CARELINUS CITEARICHTHYS APCTIFRONS EIRCPUS MICPORTOMUS	0 4 2 3.2 3.2 - 3.3 NL 2 2 3.1 2.5 - 3.8 NL 0 1 1 4.8 SL	2 2 2.5 2.8- 3.1 NL 2 2 8.6 5.1-12.0 SL	1 0.0 0.2 1.6 0 0.6 0.0 0.3 0.3
PAR ALICHTHYS DENTATUS SCCENTHALINUS AQUINSUS	17	1 1 4.C St 8 8 3.8 3.3- 5.5 St 7 6 3.1 2.8- 3.7 St	0 1.3 5.5
F 6 10 11 UPDETYCES SP. MERLUCCIUS RILINEARIS CITHARICHTHYS ARCTIFRONS EIRCPUS MICROSTOMUS PARALICHTHYS CENTAILS SCOPHTHALMUS ADUNSUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M  11	SAMPLING CEFTH 18-33M 12 12 6.4 3.3-14.7 NL 4 4 8.2 6.0-12.9 NL 8 8 1C.7 4.7-21.1 SL 2 2 6.2 6.C 6.3 SL 6 6 7.1 4.6-10.5 SL 3 3 6.3 3.6-8.2 SL	7.3 0 2.5 C.C 3.9 0.7 3 2.9 17.0 1.9
100[1 [3]44 [ARVAE CAUGH			
F 7 19 11 CERTTOS COPELUS MADERENS IS MERLUSCIUS BILLINEARIS CITHARICHTHYS APCTIFRONS ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH 0-15M 36 36 29.5 20.4-36.5 NL 0	SAMPLING DEPTH 18-23M 3 3 7.9 6.6- 9.8 SL 61 61 28.6 16.7-39.3 NL 2 2 15.5 15.4-15.6 SL GDBIIDAE	0 21.1 0.0 0.7
C I II II ERE VOOR TI A TYFANNIS	SAMPLING OEP TH C- 6M 100 55 20.7 17.0-25.0 TL		12.1
G 2 11 11  RREVOORTIA TYRANNIIS  MICKOROGON UNDULATUS  PARALICHTHYS DENTATUS  SCORFTHALMUS AQUINUS	SAMPLING DEPTH 0-6M 5 5 16.5 14.5-18.0 TL 2 2 6.1 5.9-6.4 SL 1 1 10.3 SL 0 4 6.C 4.7-7.1 SL		0.6 0.2 0.1 0.5

TABLE 3. (Continued)	145		
CPUISE DATE  06614 1566  STA. D. M. SPECIES ANALYZEG  G. 3 11 11  REFUNDATIA TYPANNUS  ANCHMA MITCHILLI  UROPHYCIS SP.  ETFCPUS MICROSTOMUS  PARALICHTHYS DENTATIS  SCCFHTHALMUS AQUONUS	**************************************	NUMBER LENGTHS (MM) ND. TCTAL MEAS. MEAN PANCE MEAS. EGGS	PER 10 P LIFVIE EGGS 1.5 0.3 0.6 0.3 1.8 0.0 3.6
C 4 11 11  8 PE VORTIA TY FANNUS UROPHYCIS SP. FTROPUS MICROSTOMUS PARALICHTHYS DENTATES SCOPHTHALMUS AQUOSUS	SAMPLING DEPTH 0-15M  1 1 5.0 TL  3 3 5.2 2.3- 9.3 NL  5 5 6.7 4.0- 9.1 SL  7 7 3.4 2.7- 3.9 SL  14 14 2.9 2.4- 4.2 SL		0.3 0.9 1.5 2.1 13.0 4.2
C 5 11 11  BREVOORTIA TY FANNUS  UPOPHYCIS SP.  MEPLUCCIUS BILINEAP IS  PEILNOTUS CARCLINUS  CITHARICH THYS ARCHIFRONS  EIRPPUS MICROSTOMUS  PAPALICH THYS DEN TATES  SCOPHTHALMUS AQUOSUS	SAMPLING DEPTH C-15M  1	SAMPLING CEPT F 16-33M  17 13 2.2 1.5- 6.1 NL 1 1 7.3 NL 0 1 1 6.C SL 3 3 5.5 4.3-13.4 SL 2 2 5.5 5.7- 6.0 SL 2 2 4.6 4.4- 4.8 SL 9	0.3 11.7 1.5 0.3 0.3 1.0 1.0 3.1 35.0
C 6 IZ 11 CERATOSCOPELUS MADEFENSIS UPOPHYCIS SP. MEPLUCCIUS BILINFARIS PEPRILUS TRIACANTHUS CITHARICHTHYS ARCFIFRONS PARALICHTHYS CENTATUS SCOPHTHAL MUS AQUISCUS SYACIUM PAPILLOSUM ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 3 3 7.9 7.6-8.3 SL 31 24 5.9 4.0-8.1 NL 6 6 15.2 5.7-24.6 NL 8 1 1 23.2 SL 32 22 8.0 6.1-10.0 SL  1  SYNODONTIDEE GOBITOAE	SAMPLING CEPTH 18-33M 1	1.2 16.0 4.8 3.1 0.6 19.3 0.0 3 0.3
F 1 12 11 BEEVOORTIA TYFANNUS ADDITIONAL LARVAE CAUGHT	SAMPLI NG DEPTH C-6M 1 1 15.C TL SYNGNATHICAE		0.1
H 2 12 11 UPDPHYCIS SP. SCEPHTHALMUS AQUONUS	SAMPLING DEPTH 0-6M 2 1 4.3 NL 1 1 4.7 SL		C.2 0.1
F 3 12 LL  8 PE VOOR TI A TY FANNUS  UPCFHYCIS SP.  PARALICHTHYS CENTATES  SCOPHTHALMUS AQUOSUS	SAMPLING CEPTH C- 6M 1 1 5.7 TL 5 4 4.8 3.2- 6.7 NL 1 1 2.7 SL		0.1 0.6 0.0 0.1
H 4 12 11 B PE VOOR 11 A TY PANNUS U FO FHY CIS SP. PPIT NOTUS CARCLINUS C IT FAR I CH THYS ARCTIFRONS ETR CPUS MICROSTOMUS PARALICHTHYS DENTATES	SAMPLINC OEP TH		0.6 4.8 0.6 0.9 5.5 0.9 3.3
H 5 12 11 BREVOORTIA TYRANNUS UECHYCIS SP. MEPLUCCIUS BIIINEARIS CENTMOPRISTIS STRIATA PPICNOTUS CARCLINUS CITEA? ICHTHYS ARCTIERONS ETPEPUS MICROSTOMUS PARA ICHTHYS DENTATIS SCOFHTHALMUS AQUOSUS	SAMPLINC OEPTH 0-15M  127 28 5.4 2.2- 9.8 NL 2 2 6.8 6.6- 7.0 NL 0 1 1 7.5 SL 2 2 6.1 5.3- 7.0 SL 3 3 8.7 6.3-12.0 SL 9 9 6.3 4.3- 8.1 SL 15 15 5.2 3.2- 7.5 SL 34 2 2 4.8 4.4- 5.2 SL	SAMPLING DEPTH 1E-?3M 2 2 5.3 5.0- 5.7 TL 8 6 5.0 3.1- 7.6 NL 1 1 7.1 NL 0  7 7 8.8 6 .3-12.6 SL 1 1 4.4 SL 21	0.7 42.3 0.9 0.3 0.7 3.2 3.0 5.0 L7.2
P 6 12 11 UPOPHYCIS SP. MERLUCCIUS BILINEARIS CITHARICHTHYS ARCTIFRONS PARALICHTHYS DENTAILS SCOFFITHALMUS AQUISUS ADDITIONAL LARVAE CAUGHT	SAMPLING DEPTH C-15M 18 17 3.2 1.5- 4.9 NL 1 1 5.1 SL 2 2 4.9 4.9- 5.0 SL 0	SAMPLING DEFTH 18-33M 25 21 2.2 1.5- 7.7 NL 3 2 4.7 3.9- 5.2 NL 3 6 6 5.7 4.7- 6.6 St 1 1 2.9 SL O GOBIIOAE	13.7 1.0 2.3 0.9 0.3

CRUISE OATE  COCH 1966  STA. D.M. SPECIES ANALYZEC  F.7 12 11  AREVORTIA INFANNUS  CEDATO SCORELUS MADERENSIS  OFCERYCIS SP.  MERLUCCIUS BILLNEARIS  PEOPILUS TRIACANTHUS  CITHARICHTHYS ARCIIFRONS  ADDITIONAL LARVAE CAUGHT	NUMBER LENGTHS (MM) NO. TOTAL MEAS. MEAN RANCE MEAS. EGGS SAMPLINC CEPTH 0-15M  1 1 19.0 TL 2 2 7.7 7.1- 8.4 SL 1 1 1.6 NL 5 1 1 29.2 SL  CCNG RI DAE SYNODON T I DAE	**************************************	NO. PER 10 M LAFVAE EGGS 0.3 1.3 10.0 1.3 0.3 2.0
J 1 12 11 MIC FCPOGCH UNEULAFUS PARAL [CHTHYS CENTATIS ACDIT IDNAL LARVAF CAUCHT	SAMPLING DEPTH C- 6M 1 1 10.9 St 2 2 10.8 10.7-10.9 St D		0.1 0.2 c. c
J 2 13 11  AFEVORTI & TYFANNIS  PPICNOTUS CARDI INUS  ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C- 6M 1		0 .1 C.1
J 3 13 11 BRE VOOR TLA TYFANNIS ADDIT 10 NAL LARVAF CALGHT	SAMPLING DEPTH C- 6M 1 1 10.6 TL GOBILDAE		0.1
J 4 14 11 A PEYODRILF TYPANNIS URD PHYCIS SP. C (THAR ICHTHYS ARCITERONS E PREPUS MICROSTOMIS PARALICHTHYS DENTATICS SCCENTHALMIS AQUINUS	SAMPLING DEPTH C-15M 6 6 9.2 7.4-12.5 TL 12 12 4.5 2.2-8.7 NL 1 1 10.0 SL 2 2 8.8 7.9-9.7 SL 6 6 6.2 3.7-11.4 SL 6 6 3.4 2.7-4.0 SL		1.8 3.6 0.3 0.6 1.8 5.2
J 5 14 11 UFCPHYCIS SP. MEREUCCIUS BILINFARIS CITHARICHTHYS ARCITERCUS FIREPUS MICROSTOMUS PRELICHT HYS CENTATUS	SAMPLING DEPTH (-15M 25 23 11.7 3.0-27.5 NL 1 1 6.7 NL D 1 1 10.6 SL 7 7 7.6 6.1-8.7 SL 2 2 7.1 5.2-9.1 SL 2		7.6 0.3 C. C 0.3 2.1 0.6 O.6
J 6 14 11 CFF*TOSCOFEEUS MAREFERS IS UROPHYCIS SP. MFPLUCCIUS BILINFARIS CITHARICH THYS ARCTIFRONS PARALICHT HYS EENTATES	SAMPLING DEPTH 0-15M  8  8  4.2  2.2- 6.7 NL 1  1  7.6	SAMPEING CEPT + 18-24M 1 1 7.9 SL 31 25 6.4 2.E- 5.1 NL 2 2 E.2 7.6- 8.8 NL D 27 27 7.2 5.7-10.0 SL 1 1 7.7 SL 17	0.2 7.5 0.6 0.0 6.8 1C.4
J 7 14 11  DECEMPTED SP.  MERIUCCIUS RIEINEAPTS  CITHARICHTHYS ARCTIFRONS  RARALICHTHYS CENTAILS  SCOPHTHALMUS AQUOSUS  ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M  0  1	S AMPLING CEPTH 18-33M 9 5 2.7 1.4- 4.0 NL 3 3 4.6 3.2- 6.3 NL 0 1 1 6.4 SL 1 1 2.7 SL 2 1 1 4.5 SL LOPHIFORMES	3.0 1.0 0.0 0.3 0.3 0.7
K 1 19 11 BREVORRTIA TY FANNUS HED PHYCIS SP. MERUHICCIUS RILINEAR IS PARALICHTHYS DENTATUS SCORPHINAL MUS AQUONUS	SAMPLING DEPTH C-6M 17 17 15.1 4.4-22.0 TL 1 1 4.9 NL 1 1 3.1 NL 0 1 7 7 2.9 2.4-3.5 SL		2.1 071 0.1 0.0 0.0 0.1 0.8
K ? IR 11 PREVIORITA TYRANNUS URDEHYCIS SP. PRRALICHTEYS TENTATUS SCCENTHALMUS AQUISUS	SAMPLING DEPTH C-15M 1 1 12.5 TL 1 1 1.6 NL 2 2 4.5 3.5- 5.6 St 18 28 26 3.0 2.2- 5.8 SL		0.3 0.3 0.6 5.5 8.5
M 3 13 11  SPENDENT A TYPANNUS  UPCOMPTIA SP.  FIRCUIS MICROSTOMUS  PARALICHTMYS DENTATES  SCORMMALMUS ZOUNGUS  ADDITIONAL LARVAE CAUGHT	SAMPLINC DEP TH 0-15M 1 1 6.0 3 3 3.7 3.4-4.1 NL 2 2 8.7 7.1-10.3 SL 12 12 4.0 2.6-5.5 SL 63 2 2 3.8 2.3-5.2 SE GOBITOAE		0.3 0.9 0.6 3.6 15.1

CRUISE DATE C6614 1966 STA. D M SPECIES ANALYZEC K 4 18 11	LARVAE ************************************	NUMBER LENGTHS (MM) NO. TOTAL MEAS, MEAN RANGE MEAS, EGGS SAMPLING CEFTH 18-24M	NO. PER IOM LIFVIE ECGS
ARE VOOR TIZ TY FANNIS ANCHOA HEPSETUS UPCEHYCIS SP. CITHAPICH HYS ARCZIFRONS	3 18.8 15.0-21.0 TL 11 8 5.6 3.3-12.3 NL 3 3 7.3 6.1-8.3 SL 5 5 9.5 8.7-11.3 SI	2 2 11.5 [C.6-12.5 1] 30 30 18.8 10.6-25.0 TL 37 26 7.6 1.7-15.8 NL 4 4 8.C 6.1- 8.5 51	D.3 5.8 9.4 1.6
FTFEPJS MICROSTOMUS PARALICHTHYS DENTATUS ADDITIONAL LARVAE CAUGHT	1 1 8.2 St 0	16 16 8.8 6.0-11.6 St GCB11CAE	0.3 0.0
K 5 19 11  8 FEVORTIA TY FANNUS A NC POA HE PSETIS U FOFMYCIS SP. PPI CNOTUS CARCLINUS CITHARICH THYS ARCHIFRONS ETROPUS MICROSTOMUS PARALICHTHYS ON TATES	SAMPLING DEPTH C-15M  1	SAMPLING CEPT: 16-24M  1 1 15.5 TL  17 16 5.2 3.9-7.1 NL  1 1 15.4 SL  23 23 8.C 5.3-12.7 SL  9 9 8.D 6.1-11.9 SL  3 3 6.7 6.4-7.3 SL  0	0.3 1.1 5.8 0.2 7.1 2.4 1.1 0.3
K 6 17 11  IJROPHYCIS SP.  MERIUCCIUS BILINEARIS  PARMLICHTHYS DENTATIS  ACDIT JONAL LARVAE CAUCHT	SAMPLING CEPTH 0-15M 15 12 3.3 2.0- 4.8 NL 13 23 GOBIIDAE UNIDENTIFIED	SAMPLING DEPTH 18-33M 15 13 2.7 1.6- 4.2 NL 4 16 GC81IDAE	5.5 0.0 5.2 0.0 12.2
	• • • • • • • • • • • • • • • • • • • •		
K 7 17 11 UROPHYCIS SP. MERLUCCIUS BILINEARIS PEPRILUS TRIACONTAUS PARALICHTHYS CENTATIS SCORHTHOLMUS AUDINUS AUDITIONAL LARVAE CAUGHT	SAMPLING CEPTH 0-15M  5 5 24.1 13.1-32.1 SL  18	SAMPLING DEPTH 18-33M 8 7 3.6 3.0- 4.7 NL 2 1 1 2.2 SL UNIOENT IF IEC	2.7 0.0 G.7 1.7 0.0 5.1
	• • • • • • • • • • • • • • • • • • • •		· · · · · · · · ·
L 1 17 11 AREVOORTIA TYPANNUS UPOPHYCIS SP. PARALICHTHYS DENTATLS SCCRHTHALMIS AQUINUS	SAMPLING CEPTH 0-6M 3 3 10.5 10.2-11.9 TL 6 7 9.2 7.2-15.2 NL 2 2 3.3 3.2-3.4 SL 4 2.9 2.6-3.1 SL		D .4 D .7 O .2 O .5
1 2 17 11  BRE VOOR TIA TY FANNIS  ANCHOA HEPSETUS  UFCFHYCIS SR.  PARALICHTHYS DENTATES  ACDITIONAL LARVAE CAUGHT	SAMPLINE DEP TH (~ 6M 2 2 13.7 10.5-17.0 TL 1 1 25.0 TL 6 5 7.6 4.0-11.3 NL 7 7 3.6 3.1-5.0 SL 308 UNIDENTIFIED		0.2 0.1 0.7 0.8 37.3
L 3 17 11  RREVOORTIA TYPANNUS  UROPHYCIS SP.  MIC FCPORGON UNCULATUS  CITHARICH THYS ARCII FRONS  FTREPUS MICROSTOMUS  PARALICHTHYS DENTATUS	26 23 7.6 3.4-10.5 NL  1 1 5.1 SL 2 2 8.C 7.9- 8.I SL 4 4 4.3 3.2- 5.0 SL 53	SAMPLING CEFFE 18-24M  1 1 11.5  8 7 3.3 2.4- 6.7 NL  1 1 4.0	0.2 9.3 0.2 0.6 0.9 1.6 17.7
L 4 17 11  CRATO SCOPELUS MAGERENSIS  UPCFRYCIS SP.  PERRILUS TRIACANTHUS  CITAR ICHTHYS ARCHIFRONS  ETPCPUS MICROSTOMUS  PARALICHTHYS DENTATIS  ACRITIONAL LARVAE CAUGHT		SAMPLING DEFTH 18-23M  14 11 6.2 4.4-7.9 NL  12 12 8.2 6.1-14.0 SL 1 1 7.3 SL 2 2 6.5 6.2-6.5 SL 5  GOBILDAE	0.3 16.4 0.3 8.8 0.6 1.D 1.7
1 5 17 11	SAMPLING MEPTH C-15M	SAMPLING CEPTH 18-33M	
UPCEHYCES SP. MERLUCCIUS BILINGAR IS PARALICHTHYS CENTATUS SCOPHTHALMUS AQUINUS ACDIT TONAL LARVAE CAUGHT	4 3 2.6 1.9 3.4 NL 0 8	5 5 2.1 2.6~ 3.8 NL 1 1 4.3 NL 1 6 1 1 4.1 SL GC81 IDAE	2.9 0.3 0.0 0.3 4.4
M 1 16 11			
RREVOORTIA TY RANNIS  ANCHOA HEPSETIS FNIEATIS FURNITIE UPO PHYCIS SP. PAR ALICHTHYS CENTAILS	SAMPLING DEPTH C- 6M 43 43 9.7 6.6-14.0 Tt 2 2 20.0 15.5-24.5 Tt 11 11 32.5 30.5-36.5 Tt 5 4 8.4 5.3-14.4 Nt 20		5 .2 0 .2 1 .3 0 .6 0 .0 2 . 4

CRITISE DATE	occondition of the section of the se		2
DF614 1966	NUMBER LENGTHS (MM) NO. NUMBER LENGTHS (MM) NO.	ND. PEP	
STA. D.M. SPECIES ANALYZED	TOTAL MEIS. MEAN RANCE MEAS. EGCS TOTAL MEAS. MEAN PANGE MEAS. EGGS	LAFVAE	EGG S
P 7 IA 11 BREVOORTIA TYFANNUS	SAMPLING DEPTH 0-6M		
HECEHYCIS SP.	67 37 8.0 5.0-11.4 Tt 35 15 7.1 3.7-11.3 NI	8.1	
PETENDIUS CAPCLINUS		4.7	
CITEARICH THYS ARCE LERONS	1	0.1	
FIREBUS MICROSTOMUS	24	0.5	
PARALICHTHYS CENTATES	22 22 5.2 2.7- 7.0 St 113	2.9	
		2.7	13.7
4 3 17 11 FLOPS SAURUS	SAMPLING DEPTH D-15M		
OFHICHTHUS OCELLATUS	2 2 25.6 23.5-27.8 NL	C . 6	
ANCHOA HEPSETIS	1 1 57.5 TL	0.3	
UFCFHYCIS SP.	1 1 19.0 TL 11 9 4.0 3.2- 6.0 NL	0.3	
MICADO AD DO NOTOLATUS		3.3	
PETCHATUS CARCLINAS	13 13 6.4 4.6- 8.2 SL 1 1 7.1 SL	3.9	
CITHARICH THYS ARCTIFRENS	20	0.3	
ETROPUS MICRO STOMUS	4 4 9.3 7.7-11.3 SL	6.1	
PARALICHTHYS CENTATUS	3 3 6.9 6.5- 7.5 SL 44	1.2	
ADDITIONAL LARVAE CALCHT	SAUDLATICE	0.9	13.3
	PARALEPIDIDAE		
	CPHIDIIC AE		
	BLENNI LCZE		
	GOBIIDAE		
	TRICHTURICAE		
» 4 16 11			
M 4 16 11 Fices saurus	SAMPLINC DER TH C- 6M		
PFEVOORTIA TYRANNUS	1 1 23.8 NL 10 10 9.8 6.5-[1.4 T]	0.1	
ANCHOA HEFSETLS	4 3 15.7 13.5-17.5 ft	1.2	
ENCRAUL IS FUR YS TOLF	1 1 15.5	0.5	
HYG CPHUM BENDITI IIR FYGOMI	1 1 7.4 \$1	C.1	
HEUGHYCIS SP.	32 28 3.5 1.6- 7.3 NL	0.1	
MERLUCCIUS BILINEAR IS	1 1 2.5 Nt 9	3.9	
MIC FOROGON UNDULATUS	23 22 4.5 2.7- 6.2 St	0.1 2.8	c. c
PRIMITUS CARALINAS	5 5 5.6 5.3 - 5.8 \$1	0.6	
BITHUS OF ELLATUS	1 1 4.7 St	0.1	
CITEARICH THYS ARCTIFRONS	3 3 8.0 6.3 - 9.6 \$1	0.4	
FTECRUS MICROSTOMUS	39 39 5.5 3.1-10.3 St	4.7	
PARALICHTHYS DENTATES	10 10 4.6 3.2~ 6.9 St 2	1.2	0.2
SYACIUM RAPILLOSUM	2 2 5.2 4.7- 5.7 SL	0.2	0.2
SAARHOBOS SE.	2 2 12.3 12.3—12.3 SL	0.2	
A DOITIONAL LARVAE CAUGHT	SYNODENTIEZE		
	BREGMACERO TIDA E		
	CPHIDI1C/E		
	SEPPANICAE		
	CAR ANG I CAF		
	URANGS COFICAE		
	CALLIDA YMI CAE		
	GO B I I D A E		
	SC CRPAEN ICAE LNIDEN TIFLEO		
	Cathe attrice		

CRUITE DATE 06614 1956 STA. O M SPECIES ANALYZED M 5 16 11	NUMBER LENGTHS (MM) NO.  TOTAL MEAS. MEAN PANCE MEAS. EGGS SAMPLING CEPTH C-15M  SAMPLING CEPTH 19-23M	NO . PEP 10M LAFVIE EGGS
M 5 16 11     FECES SAURUS     CALLECHELYS PERRYAE     MYPEPHIS PINCTATUS     ANCHOA HEPSETUS     FINCHAULIS SURYSTOLE     RENTHOSEMA SURTRILTALE     CERTOSCOPELUS MARMINGE     OTAPHUS SR.     HYGOPHUM FEINHARDIT     HYGOPHUM TANNINGE     LEMEANYCTUS ALATUS OR PHOTONOTUS     LEMEANYCTUS ALATUS OR PHOTONOTUS     LEMEANYCTUS ALATUS     LECISTOMUS SANTHORUS     LECISTOMUS SANTHORUS     MICROSORO UNDULLATUS     PRICHOTUS CAPOLINUS     ACTHUS OCELLATUS     CITHAS ICHINYS ACCITIENTS     CYCLOPSETTA E MERRIATA     FIRCPUS MICROSTOMUS     PRRYLECT HYS FERTATUS     SYACIUM CAPOLITONAL LERVAE CAUCHT SYMPHURUS SR.	1 1 29.3 NI	0.3 1.6 1.6 0.3 12.3 0.3 0.6 0.3 1.3 2.5 0.3 0.7 0.7 0.7 0.3 0.3 2.3 0.7 12.0 2.9 25.8 0.3 0.6 7.5 1.3 4.1 11.0
	UNICENTIFIE	
N 1 16 11  BREVOORTIA TYPANNIS  ANCHOA HEPSETLS  ENCRAULIS EUPYSTOLE  UFFIRMCIS SP.  MICROPOGON UNCLLATUS  PARALLCHTYS EENTATLS  A DDITIONAL LARVAE CAUCHT	LNIDENTIFIED	0.1 0.4 0.4 0.2 1.2 0.4 C.C
N 2 16 11 REFERENCE A TYPANNUS UPOPHYCIS SP. LEICSTOMUS XANTHUMUS MICREPORGIN UNEULATUS PPIENTTUS CAROLINUS PCTHUS CCELLATUS CITHARICH THYS ARCHIFPENS EIRCPUS MICRESTOMUS PARALICHTHYS CENTATUS SYMFHIRUS SP. ADDITIONAL LARVAE CAUCHT	SAMPLING DEPTH C-15M  14	4.2 15.8 0.9 26.4 1.5 0.3 0.3 3.0 0.3 7.6

TABLE 3. (continued)	150		
COULSE DATE  CEF14 1966  STA. OM SPECIES ANALYZED  N. 3 16 11	NIMBER LINGTHS (MM) NO. TOTAL MEAS. MEAN PANGE MEAS. EGGS SAMPLIN, CEPTH 0-15M	NUMBER LENGTHS (4M) ND. TICTAL MEAS. MEAN FANGE MEAS. FGGS SAMPLING DEPTH 1P-24M	NO. PER 10 M LARVAE EGGS
CALLECTHEL YS PERRYAE VYRCPHIS PUNCTATUS OPHICHTHUS MELANTHORUS OFHICHTHUS OF ELLATUS OPHICHTHUS SP.	1 1 52.3 TL	1 1 57.5 NL 1 1 57.5 TL 1 1 52.C TL 1 1 44.C TL 1 1 94.C TL	0.2 0.2 0.2 0.5 0.2
RREVOORTIA TYPANNUS ANCHDA HERSETLS CERATOSCOPELUS MADERENSIS	3 3 7.2 5.1-11.1 TL 4 5.4 3.0- 9.3 TE	1 1 8.9 St	1.0 I.3 0.2
UFOFHYCIS SP. CEN TROPRISTIS STRIATA LEICSTEMUS XANTHUKUS	29 22 3.8 2.2- 6.0 Nt 3 3 4.1 3.8- 4.8 SL	6 5 2.8 1.7- 3.4 NL 2 2 10.3 7.6-13.0 SL 6 6 3.4 2.5- 5.1 SL	9.9 0.3 1.9
MICERPOGER UNEULATUS PPLENDTUS CAROLINUS RETHUS OCELLATUS	53 51 4.0 2.1- 5.9 SL 1 1 4.0 SL	45 45 ?.5 2.3- 6.3 SL B 8 5.2 4.7- 5.7 SL	24.2 1.3 0.3
CITHAP IGHTHYS ARCTIFFONS ETPCPUS MICROSTOMIS PARALICHTHYS DENTATLS SYACIUM PARILICSUM	1 1 7.6 St 16 16 6.1 4.7- 8.3 St 2 2 4.0 3.4- 4.7 St	1 1 7.0 St 22 22 6.2 3.9- 5.7 St 2 2 6.7 8.3- 9.0 St	0 .5 8 .5 0 .6
SYMPHURUS SP. AEDIT KONAL LARVAE CAUCHT	CYCLOTHERE SP. SYNODDATIDAE MYCTOPHICAE CARANGICAE CALLIONYMICAE COBLICAE SCORPAENIDAE TRIGLICAE TETRAODENTIDAE	2 1 5.0 SL  MORINGUIDAE STOMIATIDAE SYNDOONTI(AE DPHIDIIDAE SERKANIDAE GRAMMISTICAE LABRIDAE OR SCARICAE CALLICNYMICAE GOBIIDAE STROMATEICAE UNIDENTIFIEC	0.3
N 4 16 11	SAMPLING DEPTH C-15 M	SAMPLING CEPTH 18-33M	
CALLECHELYS PERRY AE MYROPALS PUNCTATUS ENCRAULIS FURYSTOLE RENTHOSEMA SUBORBLITALE CERATISCOPELUS MADE PENSIS CERATOSCOPELUS WARM INCL OTAPHUS SP. OTOCHNIEHTHYS ATLANTICUS HYSCPHUM PEINHARDII	2 1 36.5 NL 2 1 36.5 TL 16 16 8.2 1.9-21.2 TL 1 1 7.3 St 2 2 5.1 4.4- 5.8 SL 7 7 4.6 3.6- 5.9 SL	12 12 31.6 22.7-40.5 Nt 12 12 31.7 23.3-46.5 TL 19 17 10.0 3.2-15.6 TL 2 2 6.6 5.1- 8.6 SL 1 1 6.6 SL 1 1 4.9 SL 5 5 5.2 4.4- 6.2 SL 1 1 4.5 SL	4.6 4.6 11.1 1.0 0.3 0.9 3.8 0.3
LAMFANYCTUS ALATUS ER PHOTONCTUS LAMPANYCTUS CUPRINUS LAMFADENA SP. UPCPHYCTS SP. HEMINTHTAS VIVANUS	1 1 3.9 SL 1 1 8.5 St 1 1 9.6 St 9 9 3.3 2.1- 5.0 NL	3 3 2.5 1.7- 3.C NL 1 1 4.3 St	0.3 0.3 0.3 3.7 0.3
LETISTIMUS XANTHUHUS MICROPIGON UNDULATUS PETCNOTUS CARCLINAS RITHUS OCELLATUS	2 2 3.5 3.4- 3.6 St 8 8 3.8 3.0- 6.4 St 8 8 4.9 4.5- 5.6 St 45 25 4.7 2.9- 9.1 St	9 9 2.7 2.7-4.5 St 6 6 4.6 3.7-5.8 St 52 25 5.4 2.3-11.5 St	0 .7 5 . 4 4 . 4 20 . 8
CYCLOPSET TA F MBRIATA FTROPUS MICROSTOMIS STACTUM PAPTILLOSUM SYMFHURUS SP.	1	24 24 4.C 2.7- 5.1 5L 12 12 6.5 3.4-12.7 5L 4 4 6.C 4.1-10.2 5L	0 .3 12 .5 7 .9 3 .7
ANCITIDOS	STEMATILAE SYNGODNITICAE LOPHIFEFMES OPHIDIOAE SERRANICAE APDGCNIC/E CARANGIC/E SPARIDAF LABRIDAF LABRIDAF UGILIDAE URANCSCCFICAE BLENNIC/E CALLIDNYMICAE COBIIDAE UNIOENTIFIED	MORINGUIDAE MURAENIDAE STOMIATIDAE STOMIATIDAE STOMIATIDAE STOMIATIDAE STOMIATIDAE CHLOROPHTHALMICAE PARALEPIDIDAE LOPMITEDRMES BREGMACERCTILAE DPHIDIIDAE SERRANIDAE PRIACANTHIDAE APDGGNIDAE CARANGILAE LABRIDAE DR SCARIDAE BLENNIIDAE CALLIDNYMIDAE GOBIIDAE ACANTHURICAE SCORPAENICAE IRIGLIDAE UNI DENTIFIEC	

TABLE 3. (Continued)		
CPUISF DATE CAEL 1966 STA. D M SPECIES ANALYZEC N 5 16 11 FICES SAURUS CALLECHEL YS PERRYAE MYRCPHIS PUNCTATUS FAGRAULIS EURYSTOLE CERATOSCOPELUS MAWRINGI OLAPHUS SP. HYCCPHUM BENDITI HYGEPHUM BENDITI OR PHOTOMOLUS UFOCHYCTS SP. HEMANTHIA; VI WANUS LEICSTOWUS XANTHURUS MICEOPOGON UNDULATUS PRICHOTUS CAPCLINUS RCTHUS OCELLATUS STACHUM PAPILLOSUM SYMEHUM PAPILLOSUM SYMEHUM PAPILLOSUM SYMEHUM SP. ADDITIONAL LARVAE CAUCHT	5 5 2.9 1.9- 4.5 NL 6 6 2.6 1.6- 3.5 KL 1 1 4.5 SL 3 2 4.2 4.C- 4.5 SL 7 7 2.9 2.2- 3.4 SL 7 7 2.8 2.3- 3.1 SL 23 23 4.0 2.5- 8.8 SL 34 34 3.7 2.5- 6.7 SL 33 27 5.2 2.2-13.2 SL 33 31 4.7 2.3- 8.7 SL 16 16 3.6 2.7- 5.1 SL 26 26 4.0 2.7- 7.9 SL 1 1 4.2 SL 3 3 3 5.0 4.3- 5.4 SL 8 8 5.2 3.2-12.2 SL 8 8 4.4 3.2- 7.2 SL 6 6 4.7 3.3- 5.6 SL	1.0 0.3 0.3 4.9 C.6 1.3 3.1 0.3 0.3 3.5 1.3 4.4 7.7 11.6 20.9 13.5 0.3 3.6 4.4
P L 15 LL MINOPHIS PUNCTATUS ANCHDA HEPSETUS MICROPOGON UNCULARUS SYMFHURUS SP. A COLTIONAL LARVAE CAUGHT	SAMPLINC EFPTH 0- 6M 2 2 50.7 47.0-54.5 TL 3 3 7.9 4.4- 9.7 TL 25 25 9.3 4.8-11.6 SL 1 1 13.3 SL ANGUILLA FCSTPATA SPARIDAE COBILDAE UNIDENTIFIED	0.2 0.4 3.0 0.1
F 2 15 11 E ALLECHEL YS PER YAE E ALLECHEL YS PER YAE ROLLECHEL YS PER YAE ROLLECH YS PER YAE ROLLECH YS PACH YS ROLLECH YS P. MICHOPOROLLECH YS ROLLECH YS PACH YS ROLLECH YS PACH YS SCHOOL Y	GOB110AF	1.1 1.1 0.1 0.2 0.1 16.1 0.1 0.1 0.4
P 3 15 11 CALLECTELYS PERRY AE MYRIPHIS PUNCTATUS CEFTICHTHIS DERLATUS ANCHMA HEPSETES ENGRAULIS EURYSTOLE UECCHYCES SP. LEICSTONUS XANTHULUS MICEPOGON UNDULATUS PRIENOTUS CAPILINUS ETROPUS HEROSTOMUS PARALICHTHYS CENTATUS SEOPHTHALMUS AQUINGS ACOIT IDNAL LAPVAE CAUGHT	SAMPLINC DEP 3H C - 6 M 4	0.5 0.5 0.1 0.4 1.8 2.2 0.1 20.3 1.1 0.2 0.5 0.7

CRUISE DATE CREUSE DATE CREUSE DATE CREUSE DATE CREUSE DATE CREATOSCOPPELIS ANALYZED PROPARILIS EUPYSTOLE CREATOSCOPPELIS WARMINGE INTOPYSCES SP. LEICSTOMUS XANTHINUS MICROPORCH UNCULATUS PROMITIUS CARRETINES BETHUS CREUETHUS ETPEPUS MICROSTOMUS SYACTUM PAPILLOSUM SYMFHURUS SP. ADDITIONAL LARVAE CAUCHT	SYNCOCNIE & OPHIDITAE  SEPRANIE &  APDGONIE AE  CARANGIE AE  SPARIO AE  LABRIDAE OR SCAPIDAE  SPHYPAENIE &  CALLIONYMICAE  COBIIDAE  GEMPYLIE & TECHLURIDAE  SI ROMAITE IC & E  SC CPPAENIE & F  TPIGLIE & E  TPIGLIE	NUMBER LENGTHS [MM] NO.  TOTAL MEAS. WEAK PANGE MEAS. EGGS SAMPLING CEPTH 1E-24M  1 1 48.8 TL  6 4 14.0 4.9-23.1 TL  1 1 3.6 SL  4 4 2.8 3.3- 4.5 NL  7 6 4.3 3.1- 4.7 SL  156 152 2.7 2.3- 8.1 SL  46 23 3.9 2.1- 5.7 SL  7 7 4.2 3.1- 5.1 SL  0  2 2 11.5 9.4-13.6 SL  CYCLOJHONE SP. SYNODONI ! CAE BREGMACE POTITIFE OPHIOTIOAE LABRICAE OR SCAPITAE MUGILIOAE CALL IONYM IOAE GOBITOAE TETRAODON TICAE UNICENTIFIEC	NO. PEP 10P LPPVAE
F 5 15 11  OFFICHTHICAE  CALLECHEL YS PERRYAE  WYRCPHIS FUNCTATUN  OPHICHTHUS DOFFILATUS  FROCAULIS EUPYSTOLE  BENTHOSEMA SUFORBITALE  CFRATOSCOPELLS MADERENSIS  OLAFHUS SP.  LAMFANYCTLS ALATUS OF PHOTONOTUS  NOT PSCOPPEUS SP.  HEMMITHIAS VIVANUN  LELISTOWUS XANTHURUS  MICENPOON UNDULATUS  PRICUITIUS CAPOLINUS  CYCLOPSETTA E MARIA TA  ETERPUS WICROSTOWUS  SYACIUM PAPILLOSUM  SYMEHURUS SP.  ADOLITIONAL LEGYAE CAUCHT	25 22 8.7 4.9-12.2 TL 2 2 5.5 5.6- 6.2 SL 1 1 9.7 1 1 6.2 SL 1 1 4.9 SL 17 15 3.1 1.8- 4.8 NL 7 7 3.6 2.8- 4.7 SL 26 25 4.6 2.9- 6.4 SL 37 37 4.3 2.8- 8.1 SL 41 25 6.0 3.7-10.3 SL 1 1 8.4 46 25 5.1 3.3-11.4 SL 7 6 6.9 3.1-11.3 SL 5 4 4.6 3.7- 6.8 SL	SAMPLING DEFTH 18-33M  1 1 47.8  5 5 34.0 25.4-8.0 NL  5 5 34.0 26.2-47.5 TL  1 1 75.0 TL  15 15 9.3 4.9-14.4 TL  1 1 4.8 SL  1 1 4.7 SL  6 5 3.0 2.3-4.1 NL  2 2 4.5 4.8-5.1 SL  1 1 4.7  25 25 4.7 3.1-7.5 SL  44 21 3.6 2.7-5.3 SL  74 25 5.3 2.7-11.1 SL  70 25 4.2 3.0-5.7 SL  11 10 8.2 3.4-12.7 SL  11 10 8.2 3.4-12.7 SL  MORINGUICAE SYNOCONT ITAE PARALEPIDICAE LOPHIFORMES BREGMACEROTIOAE COPHICTIOAE COPHICTIOAE COPHICTIOAE COPHICTIOAE COPHICTIOAE COPHICTIOAE COPHICTIOAE CALLICNY MICHE CALLICNY MIC	0.3 1.7 1.7 0.3 12.5 0.7 0.3 0.6 0.3 0.6 0.3 7.1 2.8 3.0 16.1 25.8 37.1 5.8 8.7 0.3 27.1 5.8 8.5